Student learning experiences in higher education in Hong Kong: An investigation of students' experiences of academic engagement in relation to the affective dimension of learning

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Abstract

Academic engagement is positioned as an important determinant of student success in higher education for it is positively linked with academic performance and other positive qualities such as Psychological Capital (PsyCap) and students' wellbeing.

The positive link between academic engagement and PsyCap, as a positive psychological capacity, also indicates the importance role of the affective dimension of learning in influencing students' academic engagement, however this dimension is under-represented in the current literature. Adopting a mixed methods approach, this study aims to examine the process of academic engagement in relation to the role of the affective dimension of learning, particularly in terms of students' experiences and perception of their engagement in study. The present study was conducted in a private university in Hong Kong, where 270 students participated in a self-reported survey and 20 of them in the subsequent semi-structured interviews. Findings from the survey indicated a positive and reciprocal relationship between academic engagement and PsyCap that the two constructs have mutually influenced each other. The interview findings revealed the influence of various affective elements in promoting students' academic engagement, which were characterised by affective-cognitive processes as students reported their experiences in detail. All these findings substantiate the influence of the affective dimension of learning on students' academic engagement and expand the current understanding of academic engagement in higher education students, adding to the body of knowledge in the extant literature. It is hope that findings from the present study would illuminate possible avenues for educators to develop appropriate practices to promote academic engagement and the subsequent academic performance in university students.

Table of Content

List of Tables

List of Figures

Glossary

- **Academic engagement** involves students' investment of time, energy and effort in their study, consisting of three dimensions of ***behavioural, affective and cognitive*** engagement.
- **Psychological Capital (PsyCap)** refers to the psychological resources of ***hope, self-efficacy, resilience and optimism*** used by students to sustain their effort in the path of learning.
- **The affective dimension of learning** involves a combination of various affective elements associated to student learning and they include PsyCap, emotional experiences, interest in learning and students' interactions with lecturers and peers.
- **Indicators** explain what constitute the meaning of a construct, such as students' participation in classroom discussion is an indicator of their academic engagement whereas hope is an indicator of PsyCap.
- **Facilitators** refer to the external factors influencing the constructs of academic engagement and PsyCap, such as lecturers' enthusiasm is a facilitator promoting academic engagement.
- **Composite constructs** refer to constructs formed by a combination of components, such as PsyCap is a composite construct consisting of four components of hope, self-efficacy, resilience and optimism.
- **Harmony University** is a pseudonym created for the context of the present study, which is a private university in Hong Kong where the data collection took place.
- **AD participants** are students who enrolled in Associate Degree programmes in Harmony University.
- **UG participants** are students who enrolled in Top-up Undergraduate Degree programmes in Harmony University.

Declaration

I declare that this thesis is my own work. No material contained in this thesis has previously been submitted for a degree in this or any other institution.

Statement of Copyright

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Dedication

To my late father and my late grandparents
Mr Man Kwong SUNG, Mr Biu LEE and Ms Chung Kwan NG
My source of faith to finish this thesis

To my mother
Ms Shui Lin LI
The reason of what I become today

Chapter 1
Introduction

Academic engagement has been positioned as a characteristic of quality teaching and learning in higher education (Ashwin & Mcvitty, 2015; Kahu & Nelson, 2018; Pascarella & Terenzini, 2005; Thomas, 2012), contributing to student success, including students' academic performance, acquisition of skills and competencies, persistence and satisfaction in their study (Bowden, Tickle, & Naumann, 2021; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; York, Gibson, & Rankin, 2015). More specifically, academic engagement is linked with positive educational outcomes, such as academic performance (Bryson & Hand, 2007; Fredricks & McColskey, 2012; Ketonen et al., 2016; Pascarella & Terenzini, 2005; Ribeiro, Rosário, Núñez, Gaeta, & Fuentes, 2019; Schlenker, Schlenker, & Schlenker, 2013; Thomas, 2012; Trowler & Trowler, 2010), self-efficacy (Bowden et al., 2021; Linnakylä & Malin, 2008) as well as life satisfaction and wellbeing of higher education students (Boulton et al., 2019; Lewis, Huebner, Malone, & Valois, 2011; Upadyaya & Salmela-Aro, 2013).

Given the positive influence of academic engagement on the aforementioned educational outcomes, it might be a good news for educators to know that students' academic engagement is found to be malleable and susceptible to contextual influences (Fredricks, Blumenfeld, & Paris, 2004; Lawson & Lawson, 2013; Skinner & Pitzer, 2012; Wang & Degol, 2014), rather than being static. This suggests that if educators are informed of potential factors fostering students' academic engagement, they might be in a better position to promote student success in higher education. In doing so, it is essential for educators in higher education to understand from students' perspective of how they perceive their academic engagement, such as their lived experiences of engaging in a particular context in the institution. However, in the existing literature, there is insufficient attention given to investigate the process and detail of students' experiences of academic engagement and how it is influenced by the factors in the

academic contexts. Therefore, more in-depth investigation of academic engagement is essential to unpack the process of student engagement and the underlying mechanisms explaining how it is subject to contextual influences in the higher education contexts.

The present mixed methods study focuses on investigating the experiences of academic engagement of Hong Kong higher education students in relation to the affective elements in students' engagement. In this chapter, I will introduce the background to the present study, followed by the research problems and the rationale for conducting the present study. Next, I will discuss the aims and objectives of the present study and illustrate how they are addressed by the three research questions I have formulated. After that, I will move on to present the focus of the present study, which covers a detailed discussion including the context of the present study and the methods of investigation. Before the end of this chapter, I will discuss the significance, the scope and the limitations of the present study. Finally, I conclude the chapter with an overview of the thesis structure and a brief summary of the subsequent chapters.

1.1 Background to the study

Educators in higher education institutions are keen to foster students' academic engagement as it is positively linked with improved academic performance in university students (Carini, Kuh, & Klein, 2006; Heikkilä, Lonka, Nieminen, & Niemivirta, 2012; Ketonen et al., 2016; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Pascarella & Terenzini, 2005; Ribeiro, Rosário, Núñez, Gaeta, & Fuentes, 2019; Schlenker, Schlenker, & Schlenker, 2013). Academic engagement of students is arguably one of the determinants for the impact of university education (Pascarella & Terenzini, 2005), not only because it was found to promote academic performance, but also the positive qualities contained in the process of engagement itself, such as

students' enjoyment in learning as they acquire knowledge after investing time and effort. Indeed, academic engagement is found to predict other positive qualities in university students, such as enhanced self-efficacy (Bowden, Tickle, & Naumann, 2021; Linnakylä & Malin, 2008), more positive emotions and adaptive coping (Reschly et al., 2008) as well as life satisfaction and wellbeing (Boulton et al., 2019; Lewis et al., 2011; Upadyaya & Salmela-Aro, 2013), supporting the importance of having students engaged in their study.

All these findings suggest that to enhance positive educational outcomes, it is crucial for educators to promote students' engagement in their study. Thus, it is necessary to understand the factors influencing students' academic engagement, which are relatively under-examined in the existing studies. Nevertheless, emerging studies revealed that Psychological Capital (PsyCap), a positive psychological capacity (detail to be discussed in Chapter 3), predicts higher levels of academic engagement (Luthans et al., 2016; Siu, Bakker, & Jiang, 2014) and subsequently their academic performance (Luthans, Luthans, & Avey, 2014; Luthans, Luthans, & Jensen, 2012; Siu et al., 2014). Results from these studies indicate that students' academic performance is positively linked with their levels of academic engagement and PsyCap, which are both malleable and susceptible to contextual influences (Fredricks, Blumenfeld, & Paris, 2004; Lawson & Lawson, 2013; Skinner & Pitzer, 2012; Wang & Degol, 2014). Thus, investigating students' experiences of academic engagement and their PsyCap, particularly how they are influenced by contextual factors might shed light on practices to improve students' academic performance.

Research also revealed that academic engagement is promoted by affective elements such as positive emotions, interest in learning and psychological resources, which are also positively linked with students' academic performance (Ainley, 2012; Luthans, Luthans, & Avey, 2014; Luthans, Luthans, & Jensen, 2012; Pekrun & Linnenbrink-

Garcia, 2012; Siu, Bakker, & Jiang, 2014; Trigwell, Ellis, & Han, 2012). Despite the identified positive link, these affective elements are relatively under-examined in the current literature (Jackson, 2015; Naude, Van den Bergh, & Kruger, 2014; Rogaten et al., 2019), particularly little is known about the detail of how students experience these affective elements and how they can promote academic engagement in higher education students.

1.2 Research problems

In this section, I discuss the research problems for the present study arising from my teaching experience as a lecturer in higher education setting in Hong Kong. Those problems are generated by the challenges encountered by educators who would like to promote academic engagement in higher education students and the need to investigate the affective dimension of learning, which is currently under-examined despite its positive link with students' engagement in their study. Answers to those research questions would provide more understanding of the phenomenon in question and illuminate strategies to foster students' academic engagement, which in turn is likely to promote positive educational outcomes in higher education students, such as their academic performance and their knowledge acquisition.

1.2.1 Partial understanding of academic engagement

The interest in investigating students' academic engagement is related to my role as a lecturer in Harmony University (a pseudonym), a private higher education institution in Hong Kong where the present study was conducted. Over the years of teaching in the University, engaging students in their study has been one of the most frequently raised concerns and challenges among teaching colleagues in our continued professional development seminars. From those seminars, I have noted a variety of views and interpretations from colleagues regarding the notion of academic engagement and strategies they used to promote students' engagement. Some

colleagues described engaged students as those who were involved in on-task behaviours, such as being attentive, taking notes and participating in classroom discussions. Other colleagues focused on students' effort invested in their learning, reflected in the quality of their assignments and examination results. Lastly, some colleagues considered engaged students as those who initiated discussions with lecturers and asked for recommendations for further reading, which may even go beyond requirements of the modules.

Despite the varied views on academic engagement among colleagues, there was a consensus among us that students' engagement would benefit their learning, yet we found it challenging to help students engage in their study. For instance, some colleagues expressed their confusion seeing some students who were seemingly very attentive in such ways as responding to lecturers' questions and being participative in classroom discussion, however, not all of them achieved well academically. Colleagues generally commented that students might not be able to articulate their thoughts clearly, which affects the quality of their assignments and the subsequent academic performance. This example suggests that despite the fact that we, as lecturers, recognise the importance to have students engaged in their study, sometimes we get confused about what constitute students' engagement, particularly when students' engagement behaviours do not lead to the outcomes we expected. Perhaps the challenges we faced are related to our partial understanding of students' academic engagement.

My curiosity for investigating students' academic engagement was prompted by the reflections on how much do we, as lecturers, know about students' experiences of academic engagement, especially how it is manifested in the higher education and how it is influenced by contextual factors. It would be a challenge for lecturers to foster students' engagement in their academic work if we have only partial

understanding of academic engagement. Reviews on academic engagement literature suggest it consists of three dimensions, namely behavioural, affective and cognitive engagement, which can be broadly understood as students' actual behaviours (e.g. attentiveness and participation), affective reactions (e.g. interest and emotions) and their effort invested to understand their academic work (all detail to be discussed in Chapter 2). Lacking sufficient understanding of how academic engagement is represented in students means that lecturers may tend to rely on our assumptions of how the engaged students look like. Perhaps we would recognise students' academic engagement through observable behaviours such as their attentiveness and participation in the classroom, yet overlooking other dimensions of academic engagement, which are not explicitly observable, such as students' enjoyment (affective engagement) after investing time to understand complex concepts (cognitive engagement). In fact, it is possible for us as lecturers to misinterpret students' academic engagement if we only focus on observing their specific behaviours in class. The limited class-time might not reflect students' overall connections to their study. For instance, a student who comes to class late, sits at the back of the classroom and stares at the window can be typically identified by lecturers as "inattentive", "mind-wandering" and "disinterested" instead of engaging, without knowing how the student may spend his/her time on academic work after class. To this end, the present study is a step towards clarifying educators' potential misinterpretation of students' academic engagement and the discrepancy between how lecturers and students perceive their engagement in study.

1.2.2 Examining factors influencing students' engagement in study

As part of my duties as a lecturer in Harmony University, I met some academically at-risk students who were on the verge of discontinuation from their study due to marginal academic performance. Those meetings provided me a chance to get to

know the learning experience of this group of students from their perspectives. I considered myself to have had an invaluable experience for having a chance to explore students' perception of their learning experiences, rather than simply interpreting their learning experience with my assumptions as a lecturer. Those students I met shared some common characteristics that they generally reported a lack of interest and self-regulation abilities in their study, resulting in distractions and reluctance to invest effort in their academic work. At the same time, those students also reflected a low self-perceived competence in their study, uncertainty in their academic goals and what they wanted to do in life. Thus, they reported a tendency to give up instead of persisting amid difficulties and challenges in their study. Indeed, students' interest in learning and their self-regulation are some indicators of academic engagement – students' investment of energy, time and effort in their academic work - which I will discuss in greater depth in Chapter 2. In addition, students' self-perceived competence and clarity in academic goals are components of Psychological Capital – positive psychological capacities - which I will elaborate further in Chapter 3. As lecturers, if we could understand the process of academic engagement in greater detail, including what behaviours constitute students' engagement in their study and factors influencing the process of academic engagement, we might be in a better position to promote students' engagement by making respective adjustments in our teaching practices.

After those brief meetings, alongside their usual study, the academically at-risk students were invited to join weekly training sessions lasting for 6 weeks, aiming to enhance their self-regulation, sense of perceived ability and motivation for study. My colleagues and I designed and conducted those training sessions to cover content including time-management skills, identifying key ideas in the course materials, step-by-step guidance for completing assignments, promoting peer support during the

sessions and encouraging students to practise self-reflection relating to their study. Despite there was yet to be a research on those training sessions, we were aware that a certain number of students who completed the training sessions did report improvement in their academic performance in the following term, which meant that they were able to continue their study in the University instead of discontinuation. These experiences excited me in the sense that it seems that there are ways to promote students' academic engagement and their academic performance. However, instead of having these remedial short-term training sessions for academically at-risk students, it would be better if we can find out how can academic engagement be fostered by factors in the regular academic contexts. Yet, there has been relatively less attention given to examine the contextual influences on academic engagement in the existing literature. To fill this gap, the present study seeks to investigate students' experiences of academic engagement and how it is influenced by factors in the academic context.

1.2.3 Exploring practices to sustain academic engagement

Alongside my teaching duties, I also took up the role of a counsellor concurrently in Harmony University, working with students on academic advising, university adjutment and other issues concerning their study life in the University. Throughout their course of study, it is inevitable for students to face setbacks and challenges, such as receiving an unsatisfactory result and having difficulties to comprehend complex course materials. During my encounters with students in the University, some of them seemd to be less affected by setbacks and challenges related to their study and they were able to overcome the difficulties and sustain their efforts to persist in their study. Students with clear academic goals, such as having an aspiration to pursue a profession or a strong determination to complete an undergradaute degree, tended to persist in their study amid setbacks and challenges, instead of giving up. This persistennce is supported by studies revealing that Psychological Capital (PsyCap) -

positive psychological capacities, e.g. resilience - predicted students' academic engagement and subsequently their academic performance (Luthans et al., 2012; 2014, 2016; Siu et al., 2014). I will discuss PsyCap in greater depth in Chapter 3.

The positive influence of PsyCap on students' academic engagement are good news to us, as educators, as it seems that promoting PsyCap can be a strategy to enhance students' academic engagement, especially both constructs are arguably to be malleable and susceptible to contextual influences (Fredricks et al., 2004; Lawson & Lawson, 2013; Luthans, Avey, Avolio, & Peterson, 2010; Luthans & Youssef, 2007; Luthans, Youssef, et al., 2007; Skinner & Pitzer, 2012; Wang & Degol, 2014). Despite their important influence, there is a lack of studies investigating factors fostering academic engagement and PsyCap. Existing studies are predominantly focused on examining their indicators and their impact on students' academic performance (Heikkilä et al., 2012; Luthans et al., 2014; Luthans et al., 2012; Schlenker et al., 2013; Siu et al., 2014; Yoon et al., 2015), while not much is known about the process of how academic engagement and PsyCap are manifested in students' experiences. There seems to be burgeoning studies to examine how academic engagement and PsyCap are fostered by contextual influences (Carmona-Halty, Schaufeli, & Salanova, 2019; Fati et al., 2019; Martínez, Youssef-Morgan, Chambel, & Marques-Pinto, 2019), however, they were either conducted in school settings or in Western contexts, thus little is known about the factors fostering these two constructs in higher education students in Hong Kong.

Without a thorough understanding of academic engagement and how it is facilitated by contextual factors, educators in higher education in Hong Kong may continue to face the challenge of promoting academic engagement in students. To address this gap, the present study aims to examine the indicators of academic engagement and

PsyCap and how they are fostered by contextual influences in students' educational encounters.

1.2.4 Addressing the affective dimension of learning

The intention of investigating the affective dimension of learning emerged from the process as I conducted the literature review on academic engagement and PsyCap, during which I noted the lack of studies addressing such affective elements as emotional experiences and PsyCap in students' learning. Indeed, the inadequate attention given to the affective elements influencing student learning is also concurred by researchers who advocated the need to enhance the conceptual understanding of the affective dimension of learning (Evans, Muijs, & Tomlinson, 2015; Jackson, 2015; Rattray, 2016, 2018; Rogaten et al., 2019). Therefore, the present study is a response to the call to address the currently less-examined affective dimension of learning and its role in influencing student learning, in particular students' academic engagement in higher education. I will address the particular elements of the affective dimension of learning in further details in Chapter 3.

1.2.5 Summary of the research problem

To sum up, the present study is driven by a need for a richer understanding of the academic engagement of higher education students, including how it is experienced and how it can be fostered by contextual influences. Despite a positive linkage found between PsyCap and academic engagement (Fati et al., 2019; Luthans et al., 2012, 2014, 2016; Martínez et al., 2019; Siu et al., 2014), little is known about how detail and process of how they can be fostered by contextual influences. Existing studies of academic engagement and PsyCap are predominantly focused on examining their indicators instead of the detail and process where students experience them. To this end, the present study extends the investigation of academic engagement and PsyCap in students in Hong Kong's Harmony University to explore students' lived experiences

and the contextual factors fostering the two constructs. In addition, there is a lack of studies in the current literature investigating the affective dimension of learning despite the affective elements having been found to promote student learning. Thus, this present study also seeks to fill in the gap by examining the influence of such affective elements as PsyCap on student learning in higher education, which is currently under-examined.

1.3 Research objectives and research questions

The present study aims to investigate how the affective dimension of learning is experienced and perceived by higher education students in Hong Kong as they reported engagement experiences in their academic work. To guide the process of investigation, three objectives are formulated to achieve the research aim.

1. To examine the relationship between self-reported academic engagement and psychological resources in higher education students in Hong Kong.
2. To explore ways in which higher education students in Hong Kong experienced and perceived their experiences of academic engagement.
3. To investigate the role of the affective dimension of learning in higher education students in Hong Kong.

Specifically, the research objectives are addressed by the following research questions:

Research Question 1 (RQ1):

What is the relationship between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong?

The first research question focuses on measuring the levels of students' self-reported academic engagement and their psychological resources (represented by PsyCap – to be illustrated in Chapter 3) using self-reported surveys in order to identify the patterns of relationship between the two constructs in higher education students in Hong Kong.

Research Question 2 (RQ2):

How do higher education students in Hong Kong experience and perceive their academic engagement?

The second research question seeks to understand the complexity and dynamic nature of academic engagement by exploring students' experiences and perception of their academic engagement in higher education. It serves to investigate how academic engagement is fostered by contextual factors in the higher education setting.

Research Question 3 (RQ3):

How do higher education students in Hong Kong experience and perceive the affective dimension of learning in their academic engagement?

The third research question intends to investigate the role of the affective dimension of learning in higher education students in Hong Kong. This question explores the presence of affective elements as students recall experiences of their academic engagement and their perception of how academic engagement is influenced by those affective elements.

1.4 Focus of the study

1.4.1 Context of the present study

The present study took place in Harmony University, a private university in Hong Kong where students were enrolled in Associate Degree and Top-up Undergraduate Degree programmes. I will present more about the characteristics of the participants in the present study as I discuss the higher education landscape in Hong Kong as shown in Figure 1.1.

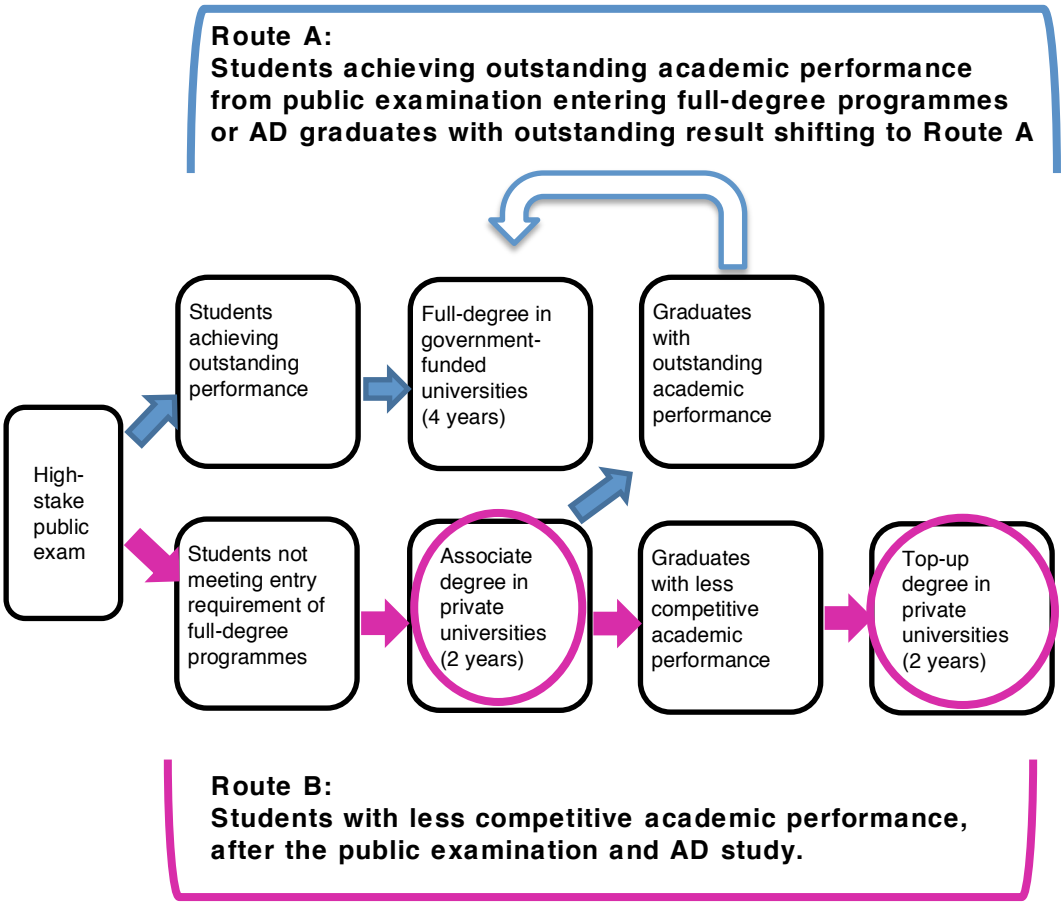


Figure 1.1. Higher education context in Hong Kong.

Universities in Hong Kong can be broadly classified into two types: government-funded universities and private universities. In Hong Kong, the government-funded universities are considered as better universities than the private ones, and the latter ones have lower entry requirements. With the limited university places offered by the government, approximately 40% of student applicants would get a place in the full-degree programmes (Joint University Programmes Admission System, n.d.), thus only students who have attained outstanding academic results in the high-stakes public examination are admitted to the government-funded full-degree programmes (Route A in Figure 1.1), which last for four years. For students who are not admitted to the full-degree programmes, private universities in Hong Kong offer alternatives of post-

secondary education by providing Associate Degree and Top-up Undergraduate Degree programmes (Route B in Figure 1.1, circled in pink).

Associate Degree (AD) programmes in Hong Kong are similar to the Foundation Programme in the UK, which are designed for post-secondary students who cannot meet the university entry requirements of government-funded universities. Slightly different from the Foundation Programme in the UK, an AD programme in Hong Kong lasts for two years, and is designed with a curriculum resembling the first two years of a four-year full-degree programme, as the majority of AD graduates aim at continuing their education by pursuing an undergraduate degree. However, instead of a natural progression, all AD graduates have to submit applications for the full-degree programmes, which means that they have to compete with all other applicants to fight for a place. A limited number of AD graduates with outstanding academic performance could have an option of continuing their remaining two years of study via the route of a "senior place", a third-year entry to a full-degree programme offered by the government-funded universities, i.e. shifting from Route B to Route A in Figure 1.1. Nevertheless, securing a third-year place in a full-degree programme is highly competitive among AD graduates, those with less competitive academic performance will usually continue their study in private universities, like Harmony University, which also offers Top-up Undergraduate Degree programmes for AD graduates who wish to attain their undergraduate qualifications. Participants of the presents study are students from Harmony University, who are registered in either Associate Degree or Top-up Undergraduate Degree programmes. Therefore, they are academically less competent comparing to students registered in the full-degree programmes in the government-funded universities, either not achieving outstanding results from the high-stake public examination or during their 2-year Associate Degree study.

1.4.2 Methods of investigation

Extant studies of academic engagement and PsyCap are heavily skewed towards the use of self-reported surveys, which are effective in identifying some patterns of relationship between the two constructs by measuring their indicators. Yet, the use of survey alone is not sufficient to investigate the complexity and dynamic process of academic engagement and PsyCap, which are both situational and malleable as a result of students' interactions with the academic contexts. Therefore, the use of semi-structured interviews is necessary to reach an in-depth investigation of how students experience and perceive their engagement with study, involving their use of PsyCap and the influence of affective elements. In order to address the research aims and the respective research questions (discussed in Section 1.3), I adopted a mixed methods approach to combine the use of a self-reported survey and semi-structured interviews with the aim to achieve in-depth understanding of academic engagement, PsyCap and their relationship with the affective dimension of learning. I will discuss detail of the methodology and research design in Chapter Four.

1.5 Significance of the study

This present mixed methods study contributes to the existing literature by enriching the conceptual understanding of academic engagement and the affective dimension of learning in higher education setting. First, findings of this present study address the lack of studies examining affective elements by formulating an integrated framework encapsulating the affective dimension of learning (detail to be discussed in Chapter 3), serving to investigate the concerted influence of affective components embedded in students' academic engagement. Second, findings of the present study contribute to a fuller understanding of academic engagement and PsyCap in two ways, with the first one involving an expanded comprehension of the indicators of students' engagement behaviours, providing educators some points of reference to recognise students'

engagement behaviours. Another way the present study contributes to the current literature is adding the perspectives from students as they reported their lived experiences of academic engagement and PsyCap, providing an in-depth understanding on how students perceived their academic engagement and PsyCap. The subsequent analysis of students' reported experiences also facilitates the exploration of how contextual factors influence students' academic engagement and PsyCap. These findings shed light on devising appropriate educational practices or intervention strategies to promote academic engagement in higher education students. Furthermore, through investigating all three dimensions of academic engagement, the present study fills the missing gap of the under-representation of all three dimensions of academic engagement in a single study in the current higher education literature (Fredricks et al., 2005) and that it provides empirical evidence for the multiple dimensions of academic engagement in higher education students. Finally, current studies of academic engagement and PsyCap are primarily conducted in western contexts (Ainley, 2012; Bryson, 2010; Carini, Kuh & Klein, 2005; Carmona–Halty et al., 2019; Fati et al., 2019; Kahu, 2013; Krause, 2005; Luthans et al. 2016, 2019; Martinez et al. 2019; Pekrun & Linnenbrink-Garcia, 2012; Trowler, 2010; Thomas, 2012; Zepke, Leach & Butler, 2010), findings from the present study add to the current literature by extending the investigation to a specific context of higher education in Hong Kong. Participants in the present study were students enrolled in the Associate Degree and Top-up Undergraduate Degree programmes, who were academically less competent comparing to those enrolled in the full-degree programmes. This group of students, who were academically less prepared, were argued to benefit more from academic engagement (Pascarella & Terenzini, 2005; Ribeiro et al., 2019), however being neglected in existing studies. Thus, understanding the pattern of their engagement

and PsyCap in this particular group of higher education students will shed light on the possible intervention strategies to enhance their learning experience.

1.6 Structure of the thesis

This thesis consists of ten chapters, with the current one (Chapter 1) aiming at introducing the background to the present study, the research problem, aims of the study and the research questions, methods of inquiry, context of the study as well as the significance of the present study. This is followed by two literature review chapters, in which I will discuss the conceptual framework involving the three key concepts in detail. Chapter 2 is a literature review focusing on the conceptualisation of academic engagement and its role in student learning, supported by a review of empirical studies and ends with my discussion on the adoption of two models/frameworks for the present investigation. Next, Chapter 3 involves a literature review on the affective dimension of learning, where I formulate an integrated framework encompassing PsyCap and other components in affective engagement as a signpost to examine the concerted influence of multiple affective elements on students' academic engagement. In addition to PsyCap, the affective components include students' emotional experiences, their interest in learning as well as their interactions with lecturers and peers, with each of them being discussed in detail, particularly relating to their role in promoting academic engagement of students. I also address the inter-relationships between these affective elements and illustrate how they mutually influence each other in fostering students' academic engagement, justifying the need to investigate them in a holistic framework. In Chapter 4, I will explain the choice of methodology, research design and the procedures of conducting research in this mixed methods study, combining the use of a survey and semi-structured interviews. I will present the results of the survey in Chapter 5, during which I focus on reporting the patterns of relationship identified

between academic engagement and PsyCap in students, addressing the first research question. As for the findings of the semi-structured interviews, I will present and discuss them in Chapters 6 to 9 as respondents reported how they experienced and perceived their academic engagement in relation to the affective dimension of learning, addressing the second and third research questions. After I have reported all the findings in the present study, I will integrate those findings from the survey and interviews in Chapter 10 to discuss their significance in light of the literature. In doing so, I highlight the implications of the findings of the present study in terms of their theoretical and practical contribution. Finally, I will close the thesis by addressing the limitations of the present study and recommending directions for future research as a conclusion.

Chapter 2

Literature Review: Academic Engagement

2.1 Overview of the chapter

In this chapter, I will present the notion of academic engagement by focusing on its conceptualisation and how it is relevant to promote positive academic outcomes in higher education. Consisting of 6 sections, I begin this chapter by introducing the views from researchers on the conception of academic engagement and its recognised significance in higher education, which draws increasing attention from educational researchers. I will then discuss some characteristics of academic engagement, such as its malleability and multidimensionality, and explain how they are relevant to the present investigation. Next, I will introduce the tripartite model and the contextual framework I adopt in the present study and justify how they serve to address the first and the second research questions formulated. After discussing the model/framework, I will move on to discuss issues of complexity related to academic engagement raised by researchers and how they are addressed, particularly over the issues of conceptual clarity. After that, I will continue to review studies investigating academic engagement in the current literature and draw on their implications for the present study. Finally, I will conclude the chapter by identifying the research gaps in the field and explain how they will be addressed in the present study.

2.2 Understanding academic engagement

To understand academic engagement, I will start with researchers' views towards the conceptions of academic engagement, which are focused on students' investment in and connections to their academic work. Then I will briefly explain the significance of academic engagement on student learning, particularly how it is found to promote positive educational outcomes, such as academic performance, justifying the need to investigate the process of academic engagement in higher education students.

2.2.1 Researchers' views on academic engagement

Researchers recognised academic engagement as critical to promote student learning in higher education (Bryson & Hand, 2007; Christenson, Reschly, & Wylie, 2012; Krause & Coates, 2008; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Thomas, 2012; Trowler & Trowler, 2010) and considered it is one of the determinants for the impact of university education on students (Pascarella & Terenzini, 2005). Indeed, academic engagement was linked with positive academic outcomes and experiences, such as academic performance (Appleton, Christenson, Kim, & Reschly, 2006; Appleton, Christenson, & Furlong, 2008; Kuh et al., 2008; Pascarella & Terenzini, 2005; Wang & Eccles, 2012), self-efficacy (Bowden et al., 2021; Linnakylä & Malin, 2008) and positive emotions (Reschly, Huebner, Appleton, & Antaramian, 2008). Given the positive influence of academic engagement, it is important to investigate how students manifest their behaviours through a range of engagement indicators (Thomas, 2012) to prepare educators in higher education in a better position to observe if students are engaged in their study.

In the present study, I use the term **"*academic engagement*"** to focus on my investigation on students' engagement with their academic work, distinguishing it from other forms of non-academic engagement with the institution, such as students' involvement in extra-curricular activities and halls of residence. Researchers generally share a consensus that academic engagement is concerned with students' investment in and connections to their study, in terms of the amount and quality of time, effort and energy students expend in their study (Carini et al., 2006; Coates, 2005; Kuh et al., 2006; McClenney, 2006; Trowler, 2010). As students are engaged with their academic work, they take ownership of their learning and collaborate with lecturers and peers to co-construct knowledge when they are working collectively (Ashwin, 2012; Ashwin & Mcvitty, 2015; Coates, 2005; Krause & Coates, 2008; Velden, 2013). To have a better

clarity of the notion of academic engagement, I will present its characteristics in the following section and discuss its relevance to the present study.

2.2.2 Characteristics of academic engagement

Reviews of academic engagement have suggested two main characteristics of academic engagement, namely its multidimensionality and malleability, which are crucial to help us understand its complexity. First, academic engagement is ***multidimensional*** (Appleton et al., 2008; Fredricks et al., 2004; Furlong & Christenson, 2008; Jimerson et al., 2003; Krause & Coates, 2008; Lam et al., 2014; Lawson & Lawson, 2013; Wang, Willett, & Eccles, 2011) that it consists of three dimensions of behavioural, affective and cognitive engagement, representing different manifestation of students' investment with their academic work. I will discuss the three dimensions in detail in Section 2.3 as I introduce the tripartite model.

Second, academic engagement is ***malleable*** instead of static (Bryson & Hand, 2007; Fredricks, Blumenfeld, & Paris, 2004; Lawson & Lawson, 2013; Wang & Degol, 2014; Wang & Eccles, 2012) that it is susceptible to contextual influences, meaning that students' academic engagement can vary across contexts (e.g. from one module to another). For example, academic engagement was found to be promoted by students' interest in the subject matter and that interest was stimulated by lecturers who were perceived as enthusiastic, knowledgeable and approachable by students (Quinlan, 2019). In line with its malleability, students' academic engagement is situated on a ***continuum*** (Bozpolat, 2016; Bryson & Hand, 2007; Fredricks et al., 2004; Kahu, 2013; Virtanen, Nevgi, & Niemi, 2013), where students may display varying levels of engagement in their study, instead of a dichotomy between fully engaged or a complete withdrawal. One end of the continuum represents higher levels of engagement, where students devoting much time, effort and energy to their academic

work, while on the other end of the continuum, the lower levels of engagement represent less engaged or disengaged students.

These characteristics of academic engagement suggest that changes in contextual factors would possibly moderate students' levels of engagement (Finn & Zimmer, 2012; Fredricks et al., 2004; Kahu, 2013; Lawson & Lawson, 2013; Wang & Degol, 2014). Bryson and Hand (2007) also added that the same student may experience different degrees of academic engagement on the continuum, depending on the contexts he/she is situated in. Thus, it is important to explore the process concerning how students report and perceive their engagement in their academic work. By doing so, we need to identify contextual factors that are perceived by students as influential to promote their engagement, which can potentially provide avenues to educators in higher education to design appropriate educational practices to enhance students' academic engagement (discussed in Section 2.2). In the next two sections, I will introduce how I formulate the conceptual framework of academic engagement adopted in the present study by discussing firstly the tripartite model, then a contextual framework.

2.3 A tripartite model measuring indicators of engagement

Researchers have reached a consensus on the multidimensional nature of academic engagement and the three dimensions of ***behavioural, affective and cognitive engagement*** are the most commonly recognised (Fredricks et al., 2004; Harper & Quaye, 2009; Jimerson et al., 2003; Krause & Coates, 2008; Lam et al., 2014; Wang et al., 2011), represented as the tripartite model (Figure 2.1). The development and recognition of the three dimensions was a result of the collective effort from various researchers over the past decades. It started as primarily behavioural, adopting from the theory of involvement (Astin, 1984), followed by dimensions of affective engagement and cognitive engagement (Newmann, Wehlage, & Lamborn, 1992; Pintrich & DeGroot, 1990; Zimmerman, 2002). In the coming section, I will introduce each individual

dimension of academic engagement by focusing on their indicators, i.e. what does an academically engaged student look like. After that, I will discuss the inter-relationship between the three dimensions and present a summary of the tripartite model by acknowledging its advantages as well as its limitations. It is important to note that for the sake of understanding, the three dimensions of academic engagement are discussed separately, while in reality they are interdependent to each other instead of existing in isolation. Such interdependence means that students tend to manifest more than one dimension of academic engagement as they are involved in their academic work, I will return to that following the discussion of the three dimensions.

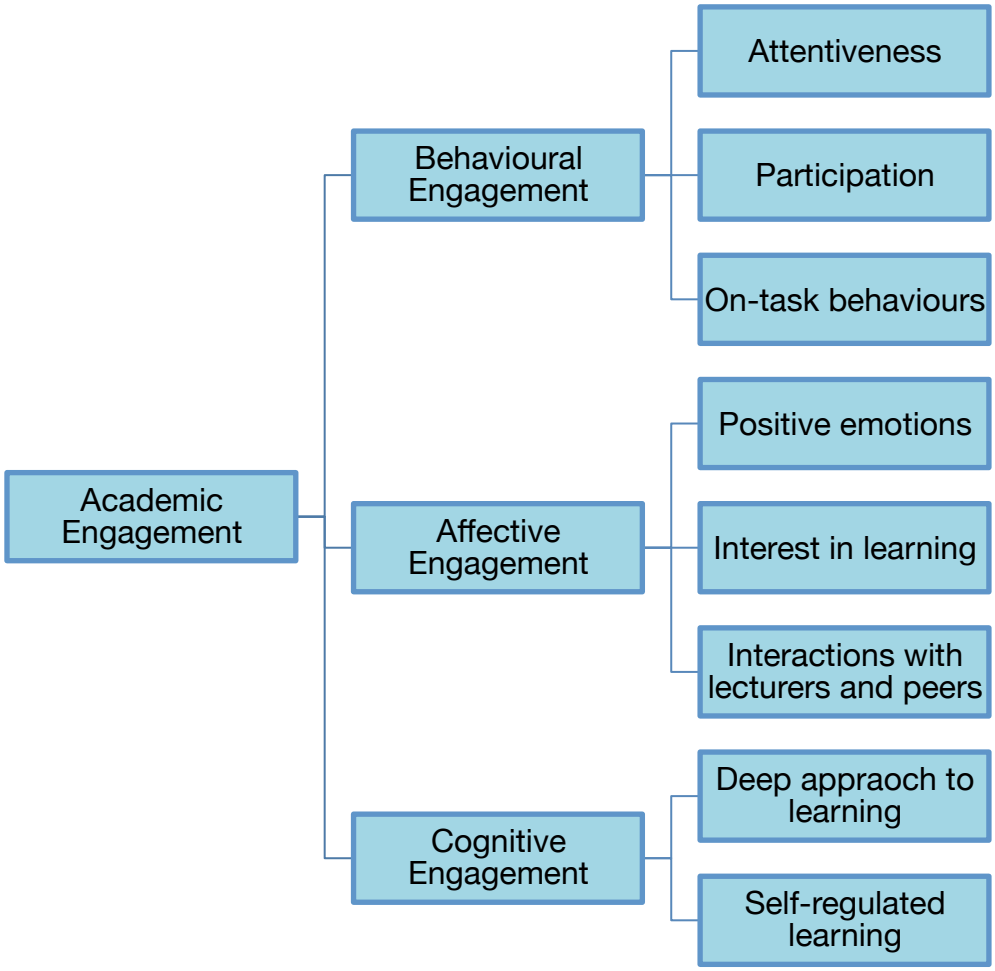


Figure 2.1. The tripartite model of academic engagement showing its three dimensions and some of its indicators.

2.3.1 Behavioural Engagement

The behavioural dimension of engagement refers to the ***actions and practices*** students displayed in their learning, represented by such indicators as ***students' attentiveness, participation in lectures and their on-tasks behaviours***, as presented in Figure 2.1. Behavioural engagement was influenced by the notion of "student involvement" (Astin, 1984) which focused on the amount of energy students devoted to their academic work. Researchers conceptualised behavioural engagement as students' observable behaviours and attitudes exhibited when they are involved in academic tasks (Appleton et al., 2006; Finn, 1989; Kuh et al., 2008; Sinatra et al., 2015; Skinner &

Belmont, 1993; Skinner, Pitzer, & Brule, 2014) (Appleton et al., 2006; Finn, 1989; Kuh et al., 2008; Sinatra et al., 2015; Skinner & Belmont, 1993; Skinner et al., 2014), with studies revealing a positive link between students' behavioural engagement and their academic performance (González, Paoloni, Donolo, & Rinaudo, 2015; Salamonson et al., 2009). Students who are behaviourally engaged in their study tend to display such behaviours as attending lectures on time, being attentive, concentrated, taking notes, staying on-tasks, participating in academic discussions with peers and asking questions (Appleton et al., 2006; Finn, 1989; Finn & Zimmer, 2012; Fredricks et al., 2004; Mahatmya, Lohman, Matjasko, & Farb, 2012; Skinner & Belmont, 1993). On the contrary, students who are not behaviourally engaged in study tend to skip lectures, being inattentive in class, get distracted, and withdraw from involving and participating in the academic tasks (Skinner & Belmont, 1993; Skinner et al., 2014).

2.3.2 Affective Engagement

The affective dimension of engagement refers to ***students' emotional reactions related to their academic tasks*** (Skinner & Belmont, 1993; Skinner et al., 2008, 2009), ***interest in learning*** (Furrer & Skinner, 2003; Skinner et al., 2008, 2009), ***sense of belonging to the educational organisations*** and ***students' perceived value of learning*** (Finn, 1989; Voelkl, 2012). The recognition of the affective dimension of engagement started to take shape with Finn's (1989) model of participation-identification, which suggested a positive relationship between students' participation (behavioural engagement) with their identification with the educational organisation (affective engagement), during which students established a sense of belonging towards their educational organisation and a personal value for their academic success Other researchers also supported this identification-participation link by suggesting that students who have developed a sense of belonging to their educational organisation were more likely to persist in their study and achieve better academic performance (Goodenow, 1993;

Pintrich & DeGroot, 1990). These results were drawn from studies initially conducted in school settings and was also supported by similar findings in recent studies focusing on higher education students (Ahn & Davis, 2020; Gillen-O'Neel, 2021; Meehan & Howells, 2019; Van Gijn-Grosvenor & Huisman, 2020). In these studies, the quality of relationship between students and their lecturers/peers were found to be one of the important factors contributing to students' sense of belonging to their university and their academic study.

The behavioural and affective dimensions of academic engagement were clearly explicated by Skinner et al. (2009) as "the quality of students' participation with learning activities in classrooms, ranging from energised, enthusiastic, focused, emotionally positive interactions with academic tasks to apathetic withdrawal" (p.494). In the present study, affective engagement involves the emotional experiences and interest of students as well as their academic interactions with lecturers and peers (Ahn & Davis, 2020; Gillen-O'Neel, 2021; Meehan & Howells, 2019; Skinner et al., 2008, 2009; van Gijn-Grosvenor & Huisman, 2020). Studies showed that students who reported more interactions with others, particularly their lecturers, were likely to experience positive emotions (e.g. satisfaction, enjoyment, and excitement), possibly resulting from knowledge acquisition (Blackie, Case, & Jawitz, 2010; Naude et al., 2014) and encouragement from their lecturers (Hensley, Shaulskiy, Zircher, & Sanders, 2015; Richards, Sweet, & Billett, 2013). On the contrary, students who are not engaged affectively are not interested in the subject matter that they are likely to report such negative emotions as boredom, disinterest, frustration and anxiety, which possibly result in less effort spent in study (Skinner et al., 2008, 2009).

2.3.3 Cognitive Engagement

The dimension of cognitive engagement is arguably difficult to measure and observe (Appleton et al., 2006; Barlow et al., 2020; Greene, 2015) as its features are less

observable than behavioural engagement (e.g. students' participation in class activities and their attentiveness). Rather, cognitive engagement is reflected in ***students' cognitive investment in academic tasks*** (Chapman, 2002), such as their effort expended ***beyond classroom and course requirement***. Researchers described the cognitively engaged students as purposeful and willing to expend effort to understand complex ideas and to acquire difficult skills (Fredricks et al., 2011; Greene, 2015), typically using cognitive strategies and self-regulatory strategies to monitor their study (Blumenfeld, Kempler, & Krajcik, 2006; Greene, 2015; Reschly & Christenson, 2012; Rotgans & Schmidt, 2011a). Thus, cognitive engagement is reflected in students who (a) seek deep understanding of the course content with the use of cognitive strategies and (b) utilise self-regulated learning strategies to monitor their study (Finn & Zimmer, 2012; Fredricks et al., 2004; Wang et al., 2011).

(a) Seeking deep understanding of course content

The first key feature of cognitive engagement involves an intention to process meaning of course materials beyond the surface level (Entwistle, 2008; Entwistle & McCune, 2004), resembling features of a ***deep approach to learning*** (Fredricks et al., 2004; Wang et al., 2011) that students are willing to expend their effort to understand complex ideas. Thus, when students are cognitively engaged in their study, they tend to employ such cognitive strategies as relating learning materials to their personal experiences, making connections between new ideas and existing knowledge, and looking for evidence before drawing conclusions (Entwistle & Peterson, 2004; McCune & Entwistle, 2011). They are eager to learn about the principles and patterns underpinning the learning materials and the meaning conveyed by the authors. Conversely, a surface approach to learning is reflected in students who intend to meet the course requirements with minimal effort that they tend to reproduce the factual information in the course materials without spending time to understand the meaning

(Entwistle & Peterson, 2004). However, these two approaches involving deep and surface processing are not mutually exclusive in students who are cognitive engaged in their study. Instead of sticking to either approach of learning, these students are capable of using a mixture of cognitive strategies reflecting both the deep and surface approaches to learning to suit the expectations of specific learning tasks (Greene, 2015). For instance, students may recognise the need for memorisation in order to reach further understanding of the course materials (e.g. some technical terms) at some point, so they use rote memorisation to reproduce some factual information to facilitate the subsequent comprehension. At other times, these students would invest time to see the linkage between different parts of the course materials in order to look for meaning and principles underlying some concepts in the subject. These students are sometimes referred to as strategic learners (Entwistle, McCune, & Walker, 2001), are typically alert to the expectations and assessment requirements in the specific learning contexts (Heikkilä & Lonka, 2006) that they are also flexible in selecting appropriate cognitive strategies to employ in order to meet the task demands. Therefore, these abilities of being flexible in employing appropriate strategies to fit the demands of the academic tasks is also related to the next component of cognitive engagement - self-regulated learning - students' determination to monitor and regulate their study progress.

(b) Self-regulated learning

Self-regulated learning is portrayed as the second key feature of cognitive engagement (Appleton et al., 2008; Fredricks et al., 2004; Sinclair et al., 2003; Wolters & Taylor, 2012) that it involves a ***proactive process*** during which students consistently ***organise and manage their thoughts, emotions and behaviours*** towards making progress in their study (Boekaerts & Corno, 2005; Pintrich, 2004; Zimmerman, 2000). Self-regulated students are likely to set goals and make plans to monitor their study progress

(Appleton et al., 2006, 2008; Fredricks et al., 2004; Greene & Azevedo, 2007; Zimmerman, 2000) with the use of regulatory strategies, such as time management and self-evaluation, to monitor their study progress and to make necessary adjustment. Studies found that students who were self-regulated learners tended to employ cognitive strategies to pursue deeper cognitive understanding of the course materials (Evans, 2014; Heikkilä & Lonka, 2006; Heikkilä, Niemivirta, Nieminen, & Lonka, 2011; Loyens, Rikers, & Schmidt, 2007; Micari & Light, 2009; Wolters & Taylor, 2012) and achieved outstanding academic results (Heikkilä & Lonka, 2006; Heikkilä et al., 2011). Thus, there seem to be a positive linkage between students adopting a deep approach to learning and those employing self-regulated strategies during their study, yet, the two concepts emphasise different aspects in student learning. The deep approach to learning is focused on students' intention to understand the meaning of course materials in depth and such intention is manifested as students' use of various cognitive strategies to help them process the course materials. On the other hand, self-regulated learners are focused on efforts to manage their progress in study to achieve their academic goals. In doing so, these students select appropriate strategies, which may include but not limit to cognitive strategies associated with the deep approach.

2.3.4 Inter-relationship between the three dimensions

As noted earlier in Section 2.3, the three dimensions of academic engagement do not exist in isolation, but inter-related with each other (Figure 2.2), such that changes in one dimension may influence another dimension (Appleton et al., 2008; Fredricks et al., 2004; Furlong & Christenson, 2008; Kahu, 2013). Studies revealed that students who adopted a deep approach to learning (cognitive engagement) reported more positive emotions (affective engagement) as they acquired a deeper understanding of the subject matter, particularly when they were able to articulate that understanding to others, e.g. lecturers and peers (Entwistle & Entwistle, 2003; Entwistle & McCune,

2009). Skinner et al. (2008) found that affective engagement contributed significantly to changes in behavioural engagement, with students who experienced positive emotions reported investing increased effort in their study. Furthermore, behavioural engagement was positively linked with the students' use of deep processing strategies and their self-regulation (Hospel, Galand, & Janosz, 2016). In addition, some studies showed that self-regulated learners were more likely to report positive emotional experiences (Linnenbrink & Pintrich, 2000; Schutz & Davis, 2000), supporting the inter-relationship between the affective and cognitive dimensions of engagement. All these studies suggest that the three dimensions of academic engagement are intertwined with each other that enhancing one dimension can possibly promote other dimensions of engagement. Thus, in order to investigate the notion of academic engagement more fully, it is necessary to examine all three dimensions individually and collectively as a composite.

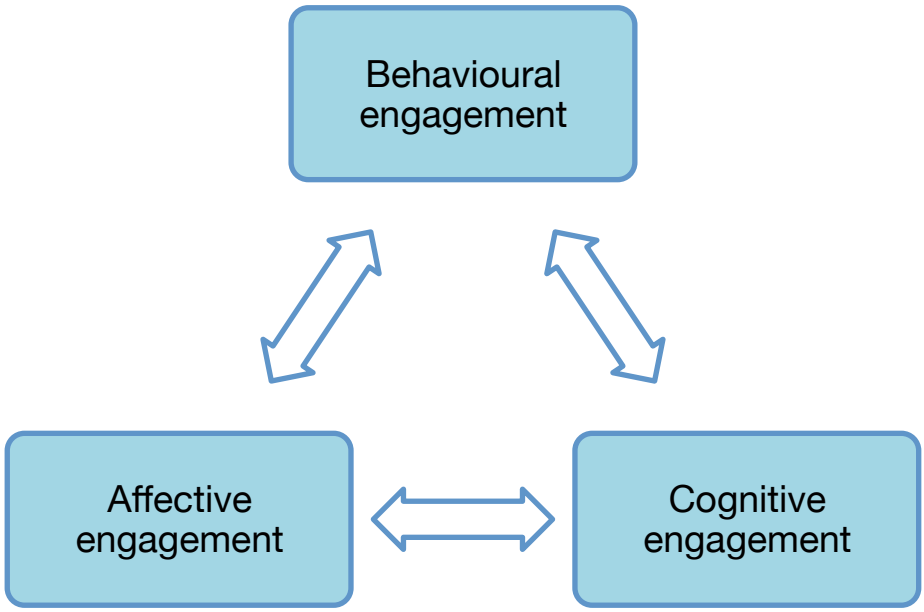


Figure 2.2. Inter-relatedness of the three dimensions of academic engagement.

To contextualise the inter-relationships between the three dimensions of academic engagement in a higher education setting, I present the following scenario as an example with illustration in Figure 2.3 to explain the underlying dynamic process of academic engagement as students are involved in academic work.

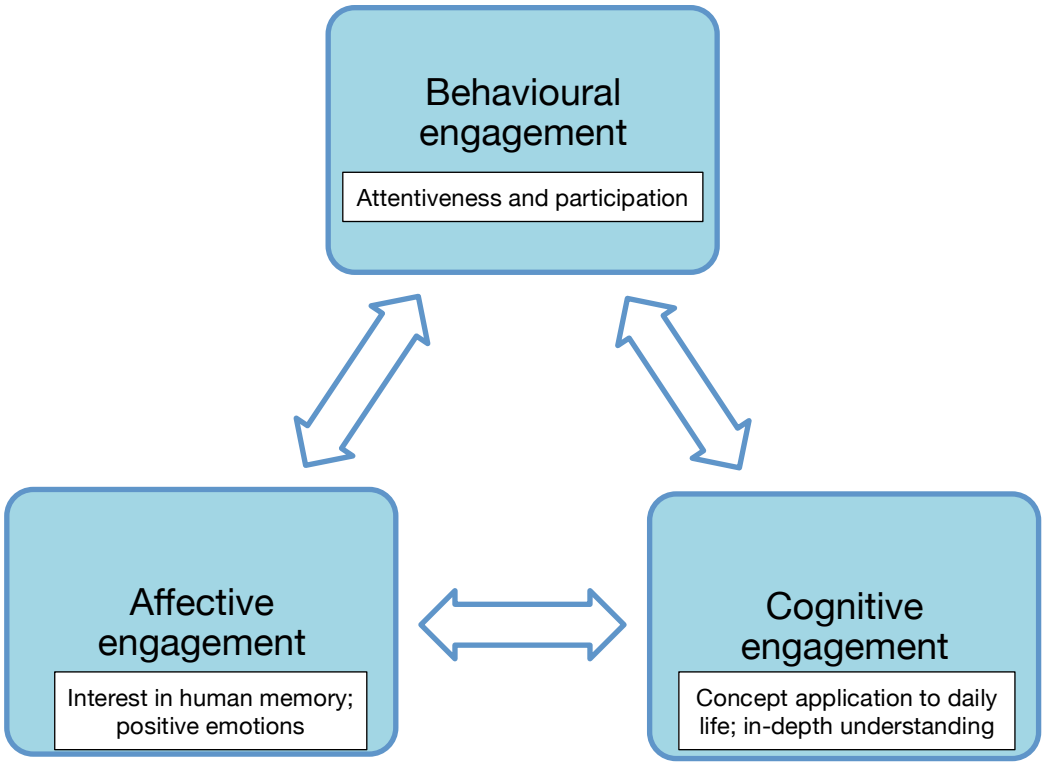


Figure 2.3. A scenario illustrating the inter-relatedness of the three dimensions of academic engagement.

A student who has developed an interest in human memory (affective dimension) is likely to be attentive and participative during psychology lectures (behavioural dimension), particularly when concepts of human memory are presented. The student may also expend extra time outside lectures to seek in-depth understanding of concepts of human memory and try to connect that knowledge with daily life (cognitive dimension). As the student gets involved with the academic work, he/she may experience some positive emotions such as satisfaction and excitement (affective

dimension), resulting from a deeper understanding of human memory (cognitive dimension) and those positive emotions may also serve as anticipatory emotions to promote the student's engagement in future academic encounters (behavioural dimension). These dynamic interactions illustrated in Figure 2.3 do not only explain the inter-relationships between the three dimensions, but also reflect the complexity of academic engagement, which is susceptible to contextual influences, and I will discuss further in Section 2.4.

2.3.5 Summary of the tripartite model

The tripartite model captures the multiple dimensions of academic engagement and it delineates the specific indicators constituting each dimension of academic engagement, represented by students' actions, feelings, efforts and strategies towards academic work. The use of the tripartite model allows us to measure the varying strengths of academic engagement in students, as reflected in students' reported scores of the engagement indicators in the three dimensions. This indicator-oriented model is used to examine the direction (i.e. positive or negative) and strength (i.e. strong or weak) of a relationship between academic engagement and other constructs (e.g. Psychological Capital), addressing the first research question (RQ1) below.

Research Question 1 (RQ1):

What is the relationship between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong?

The first research question aims to identify the relationship between students' reported academic engagement and Psychological Capital (PsyCap) when they are involved in their academic work. I will discuss the conceptualisation of PsyCap in Chapter 3, however, it will be helpful to briefly introduce its four components of hope, self-efficacy, academic resilience and optimism, which signify the positive psychological capacities students used to persist in their study. Understanding the pattern of

relationship between academic engagement and PsyCap might shed light on possible educational practices to promote either construct as both constructs were found to influence academic performance of students positively (Appleton et al., 2006, 2008; Fati, Ahmed, Umrani, & Zaman, 2019; Kuh et al., 2008; Luthans, Luthans, & Jensen, 2012; Martínez et al., 2019; Ortega-maldonado & Salanova, 2018; Searle, 2010; Siu et al., 2014; Wang & Eccles, 2012). However, focusing on investigating the indicators of academic engagement and PsyCap alone is not sufficient to understand the processes and mechanisms underneath the two constructs, such as factors influencing students' engagement resulting from their interactions with the academic contexts and how do students develop their PsyCap. To fill this gap, I introduce another framework in Section 2.4 to address the second research question listed below, which aims to investigate the process and mechanisms underlying academic engagement as students interact with the academic contexts.

Research Question 2 (RQ2):

How do higher education students in Hong Kong experience and perceive their academic engagement?

The second research question aims to investigate the complexity of academic engagement, expanding its current understanding to include instances of engagement, including what and how did engagement happen. The contextual framework adopted in the present study (see next section) seeks to extend the focus from the pre-determined indicators of academic engagement to explore factors influencing students' academic engagement and the possible outcomes resulting from such engagement.

2.4 A contextual framework investigating processes of engagement

2.4.1 Addressing malleability and contextual influences

Researchers recognise academic engagement as malleable, situational and dynamic that it is susceptible to students' personal characteristics or contextual influences

(Fredricks et al., 2004; Lawson & Lawson, 2013; Skinner & Pitzer, 2012; Wang & Degol, 2014). The tripartite model discussed in the previous section is effective in distinguishing the degrees of academic engagement between individual students, i.e. some students might report higher levels of academic engagement than others. Although students reporting high levels of academic engagement might have a tendency to be more engaged in their academic work in general, they are not necessarily manifesting the same levels of engagement across all settings. Rather, they might report varied levels of academic engagement across different settings, subject to such contextual influences as their interest in a particular subject matter. For instance, students with a prior interest in history may pay more attention and perhaps initiate discussion with peers to explore the subject matter, however, they might not expend the same effort in another subject, e.g. mathematics, if they are not interested in it. Another example is the influence of the learning environment that students' levels of engagement may be promoted by insightful interactions with lecturers and supportive peers. This malleable and situational nature of academic engagement is indeed highly relevant to the higher education students in the present study, who experience various contexts in their academic encounters, e.g. across different modules, having different interactions with lecturers and peers. Indeed, researchers called for the need to clarify how students perceive their engagement experiences across different contexts (Bryson & Hand, 2007; Eccles & Wang, 2012) to offer more empirical support for the malleability of academic engagement. In response to that, I adopt the contextual framework in the present investigation to enable an exploration of the processes of academic engagement, contributing to a more fine-grained understanding of the cognitive and affective dimensions respectively.

2.4.2 Components of the contextual framework

Despite that the majority of studies on academic engagement are focused on examining its indicators (e.g. students' attentiveness), some researchers are also keen to investigate how academic engagement can be influenced by some of its facilitators (e.g. lecturers). I take reference from the contextual framework (Kahu, 2013; Kahu & Nelson, 2018) as a signpost to investigate how students' experiences of academic may vary resulting from the contextual influences. The contextual framework consists of three main components, namely ***indicators, facilitators and outcomes*** of academic engagement (Figure 2.4).

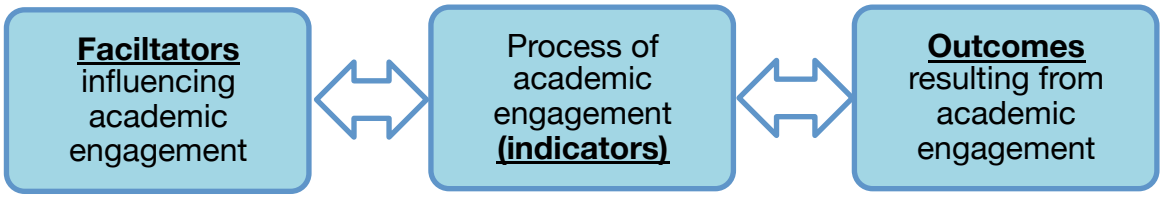


Figure 2.4. A contextual framework of academic engagement.

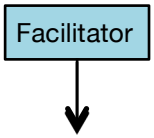
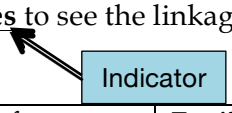
2.4.2.1 Differentiating indicators and facilitators of academic engagement

To understand academic engagement, it is necessary to differentiate its indicators from its facilitators to understand the dynamic flow between the components in the contextual framework. In brief, ***indicators*** refer to what constitute the ***construct itself*** (i.e. academic engagement of students), whereas ***facilitators*** are the ***external factors*** "outside of the construct" (Finn & Zimmer, 2012; Sinclair et al., 2003; Skinner et al., 2008) influencing the indicators of academic engagement. For instance, lecturers' enthusiasm was found to be a facilitator promoting academic engagement of university students (Bryson & Hand, 2007; Halm, 2015; Skinner & Pitzer, 2012; Umbach & Wawrzynski, 2005; Zepke, Leach, & Butler, 2010), whereas students'

initiative to use cognitive strategies are seen as indicators of the cognitive dimension of academic engagement, see Table 2.1 for further illustration with examples.

Table 2.1

Depicting indicators and facilitators of academic engagement

	Indicators	**Facilitators**
Definition	Components of academic engagement to represent students' connections to academic work.	External factors influencing changes of academic engagement.
Example	 **Lecturers who are encouraging and available** in giving academic guidance to students promoted students' effort to invest in their study by **using cognitive strategies** to see the linkages between different parts of the course materials. 	
	Indicator: Students' use of cognitive strategies to connect parts of the text for deep understanding.	***Facilitator:*** Encouraging lecturers who made themselves available to students by giving academic guidance**.**

Therefore, indicators are components of academic engagement representing students' connections to academic tasks, i.e. what does academic engagement look like, while facilitators refer to factors influencing the levels of academic engagement (Appleton et al., 2008; Sinclair et al., 2003). The use of a contextual framework incorporates what we already know about academic engagement (i.e. its indicators) with what we know relatively little about, i.e. the lived experiences of students and the exploration of potential facilitators influencing their academic engagement.

As for the outcomes of academic engagement, they are the consequences resulting from students' academic engagement, such as improved academic performance, (e.g. Appleton et al., 2006, 2008; Kuh et al., 2008; Wang & Eccles, 2012), enhanced self-

efficacy (Bowden et al., 2021; Linnakylä & Malin, 2008) and positive emotions (Reschly et al., 2008). Despite a positive linkage was found between academic engagement and students' academic performance, little is known about the process of how academic engagement contributes to improved academic performance, except emerging studies revealing academic engagement was moderated by Psychological Capital (see Chapter 3), which further enhanced students' academic performance (Martínez et al., 2019). Therefore, the present study takes a student-centred perspective (Bryson & Hand, 2007) to investigate students' lived experiences, such as how they described and perceived their own experiences of academic engagement.

2.4.2.2 Reciprocal influence between components

In addition, academic engagement and its facilitators were found to have a reciprocal influence on each other (Kahu, 2013; Kahu & Nelson, 2018), for instance, academic engagement was promoted by students' self-efficacy (facilitator), while self-efficacy was also enhanced by students' increased engagement in their study (Schunk & Mullen, 2012). Similarly, Kahu and colleagues (2013, 2018) also identified a mutual influence between academic engagement and its outcomes that students who are more engaged in study tend to experience positive educational outcomes, such as outstanding academic performance, which then promotes their further engagement in study. These findings indicate that the relationships between facilitators, indicators and outcomes of academic engagement may not follow a temporal sequence to show that facilitators (e.g. interest) promote academic engagement (e.g. doing extra reading on the subject matter), which then influences outcomes (e.g. satisfactory academic performance). Rather, the influence between these components of academic engagement can be reciprocal that students may gain insights from investing time and effort to do extra reading, which enhances their interest in the subject matter, and such enhanced interest then promotes further academic engagement and subsequently their

academic performance. Also, the satisfactory academic performance achieved by students may also strengthen students' self-efficacy in a particular discipline of study, thereby fostering further academic engagement.

2.4.3 Complexity of academic engagement

This sub-section consists of some features of academic engagement, reflecting its conceptual complexity and I will discuss how these seemingly complex features indeed contribute to support the focus of the present investigation.

2.4.3.1 Acknowledging the conceptual overlaps in academic engagement

In spite of the attempt from researchers to explicate the difference between indicators of academic engagement from its facilitators, in reality, the boundaries between them are not always clear (Fredricks et al., 2004; Jimerson et al., 2003; Kahu, 2013). For instance, positive emotions are sometimes conceptualised as indicators of affective engagement (Fredricks et al., 2004; Skinner et al., 2008), while at other times they are regarded as facilitators promoting students' overall academic engagement (Pekrun, Goetz, Titz, & Perry, 2002; Reschly et al., 2008). In Table 2.2, I use an example of the experience of positive emotions to illustrate how the overlaps between indicators and facilitators of academic engagement are justified, in such way that they indeed reflect the dynamic nature of academic engagement and support the need to investigate it holistically.

Table 2.2

Positive emotions as indicators while facilitators in different occassions

Enjoyment as an indicator of affective engagement	**Enjoyment as a facilitator of academic engagement**
Students who are engaged in academic discussion with lecturers, **enjoying** the encounters as they **felt satisfied** to broaden their perspectives in understanding the subject matter.	After an enjoyable academic encounter with their lecturers, the **experience of enjoyment** serves as an anticipation for students to look forward to another academic encounter, i.e. enjoyment as a facilitator fostering further academic engagement.

Instead of forcibly classifying emotions experienced by students as either indicators or facilitators of academic engagement, I subscribe to the argument that emotions can be interpreted as both indicators and facilitators (Kahu, Stephens, Leach, & Zepke, 2015; Lawson & Lawson, 2013), depending on how and when they are experienced and perceived by students. As illustrated in Table 2.2, the positive emotion of enjoyment experienced by students as they are having academic discussion with lecturers is recognised as an indicator of affective engagement, which reflects students' emotional experiences as they are connected with academic work. Concurrently, such enjoyment also plays the role as a facilitator to promote an anticipation of a future positive learning experience, thus increasing further engagement of students in their study. Indeed, this example clearly demonstrates the dynamic nature of academic engagement that we need a holistic investigation to address its complexity by examining its processes involving indicators, facilitators and outcomes, in order to have a more in-depth understanding of it. Researchers assert a priority to investigate academic engagement as a holistic construct over the issue of the blurred boundaries between its indicators and facilitators. They emphasise the need to investigate its multiple dimensions and the dynamic process underneath in order to achieve a comprehensive understanding of students' engagement experiences.

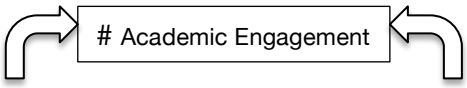
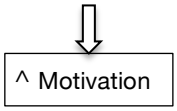
To conclude, I acknowledge those issues relating to the overlaps between indicators of the three dimensions of academic engagement as much as those between indicators and facilitators of academic engagement. Instead of an arbitrary distinction, these overlaps are acceptable and realistic to reflect the dynamic and complex nature of academic engagement in an actual academic context, justifying the combined use of a tripartite model and a contextual framework in the present study (see Figure 2.5) to investigate the notion of academic engagement in finer grains.

2.4.3.2 Academic Engagement and motivation

Motivation was found to be a vital factor in promoting students' academic engagement (Hu & Kuh, 2002; Siu, Bakker, & Jiang, 2014; Walker, Greene, & Mansell, 2006) and both of them was found to predict academic performance of university students (Taasoobshirazi et al., 2016). These findings suggest that motivation and academic engagement share some similarities that they both contribute to students' academic performance by enhancing their effort investing in study, however they are theoretically distinctive (Finn & Zimmer, 2012; Martin, 2012; Wang & Degol, 2014). For instance, motivation was found to mediate Psychological Capital in university students, which then promoted their academic engagement (Siu et al., 2014), supporting the distinctiveness between students' motivation and their academic engagement. Motivation refers to the underlying energy and reasons driving students to invest in learning activities (the "why"), whereas academic engagement is an outward manifestation of such motivation in completing academic tasks, i.e. energy in action (Ainley, 2012; Appleton et al., 2008; (Skinner, Kindermann, & Furrer, 2009; Skinner & Pitzer, 2012), explaining "what" and "how" students invested in their academic tasks. Perhaps motivation can be understood as the "fuel" to activate and support the "vehicle" of academic engagement, while students as the "drivers" , they have the autonomy to decide whether they wish to engage and how much energy they would engage in a given academic context, such as in a particular module. I present a scenario in Table 2.3 to illustrate the differentiation between students' academic engagement and their motivation.

Table 2.3

A scenario depicting academic engagement and motivation

Academic Engagement	**Motivation**
Outward manifestation of motivation as students involve in academic work	The energy activating students' engagement in study
A scenario differentiating academic engagement from motivation:  A student **being attentive (#)** in class and **investing extra time (#)** to study human memory, wishing to **take better care of his/her grandfather (^)** who is suffering from memory loss.  	

A student with his/her grandfather suffering from memory loss may show a great interest in the topic of human memory in a psychology module, he may be very attentive and participative in the lectures that he may also spend extra time to look for readings on the topic of human memory beyond lectures. His interest in human memory could be ***motivated*** by his wish to learn more about memory loss, hoping to take care of his grandfather. His academic engagement is expressed in his ***actual behaviour*** of being attentive and participative in lectures and searching for additional materials to read and explore the topic further.

2.4.3.3 Disengagement

Most studies of academic engagement are focused on investigating the indicators representing high levels of engagement, as they predicted positive educational outcomes such as academic performance, self-efficacy and wellbeing of students (Boulton et al., 2019; Bowden et al., 2021; Heikkilä et al., 2012; Ribeiro et al., 2019; Schlenker et al., 2013), yet little is known about what constitutes disengagement in students and the factors leading to disengagement. The argument of academic engagement being situated on a continuum (Bryson & Hand, 2007; Fredricks et al.,

2004; Kahu, 2013) offers a direction to investigate the other end of the continuum reflecting lower levels of engagement, where disengagement is represented. Despite Chipchase et al. (2017) found that there was yet to be an agreement on the conceptualisation of disengagement, some researchers argued disengagement was more than the absence of engagement (Chipchase et al., 2017; Skinner et al., 2008, 2009), rather, it involves students' passivity and withdrawal from study. Some researchers argued for the behavioural and affective dimensions in students' disengagement (Skinner et al., 2008; 2009; Skinner, Pitzer, Brule, 2014) that students who are disengaged from study tend to display behaviours like skipping lectures and drifting away their attention (i.e. behavioural), and they also report feelings like boredom and frustration (i.e. affective). Studies revealed that academic engagement, particularly students' participation in classroom activities (i.e. behavioural engagement), was negatively linked with negative emotions, such as boredom (Ainley, Corrigan, & Richardson, 2005; Dettmers et al., 2011) that students who experience boredom in their study tend to participate less in classroom activities. The present study seeks to address the lack of attention given to students' disengagement in such ways as exploring features of disengagement from students' instances of engagement and investigating it is influenced by factors in the academic context.

2.4.4 Combining the two frameworks

To fully address the complexity of academic engagement and its dynamic processes discussed, I combine the tripartite model and the contextual framework in the present study, presented in Figure 2.5, explaining the interactions between the process of academic engagement, its facilitators and outcomes. Each model/framework contributes to address some aspects of the conception of academic engagement that the tripartite model addresses the **first research question to identify the relationship between self-reported academic engagement and PsyCap (RQ1)**, focusing on the

measurable indicators of academic engagement. Adding the contextual framework in the present investigation complements the limitations of the indicator–oriented tripartite model in such ways that the contextual framework enables the investigation of students' lived experiences and perception of academic engagement, addressing the second research question. Incorporating the two model/framework in the present study provides a holistic perspective to understand the intensity of academic engagement and its relationship with PsyCap, illuminating further insights on students' investment in their academic work.

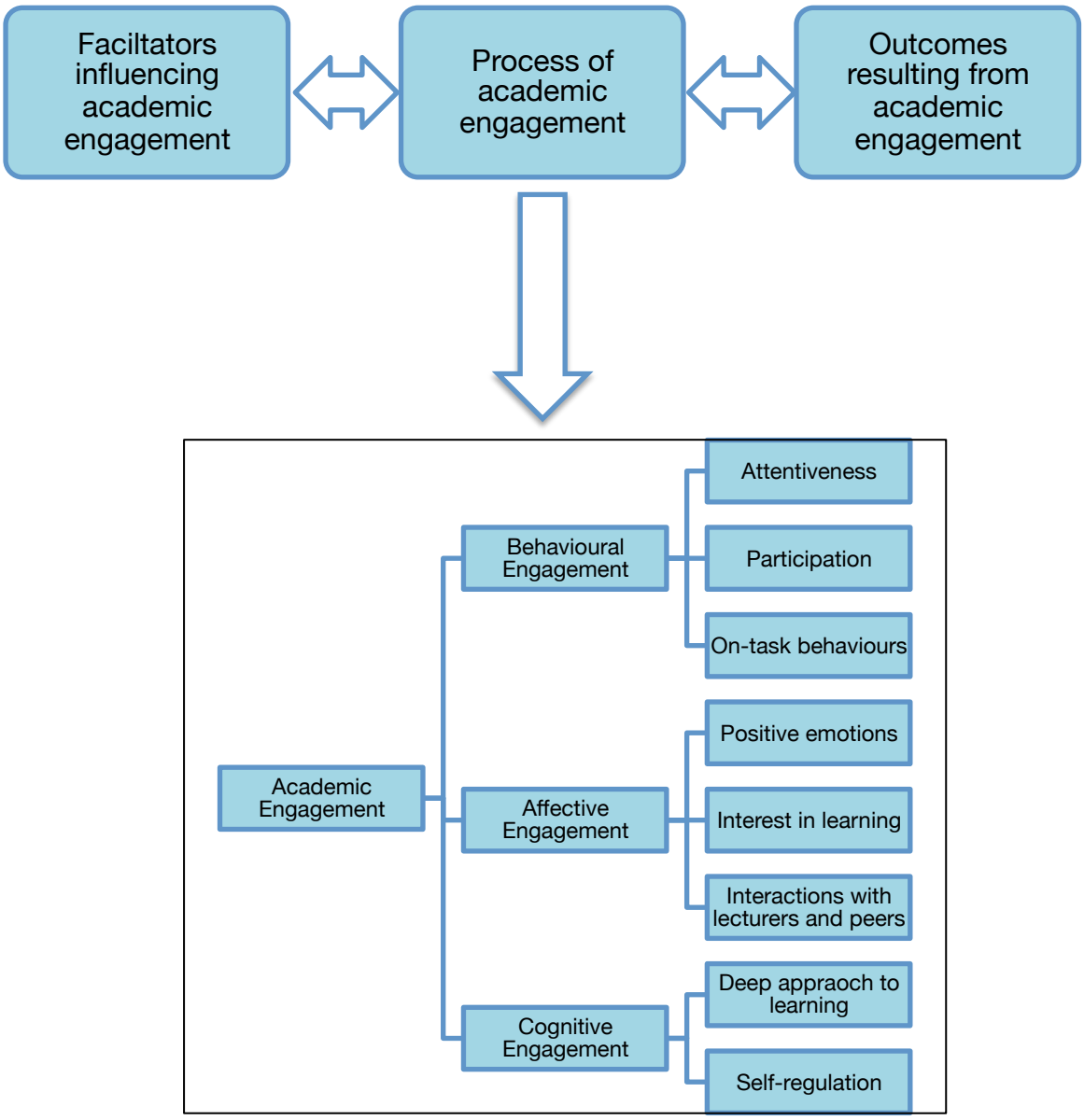


Figure 2.5. A combination of the contextual framework and the tripartite model to investigate academic engagement.

2.5 Studies on academic engagement

Given its recognised benefits to student learning, academic engagement has attracted the attention from researchers who are interested in promoting student learning experiences. Academic engagement is found to be positively associated with students' academic performance across various levels of education, from schools to higher education (Appleton et al., 2006; González et al., 2015; Heikkilä, Lonka, Nieminen, & Niemivirta, 2012; Kuh et al., 2008; Reeve & Lee, 2014; Salamonson et al., 2009; Schlenker, Schlenker, & Schlenker, 2013; Taasoobshirazi, Heddy, Bailey, et al., 2016; Wang & Eccles, 2012; Yoon et al., 2015), thus in-depth investigation of academic engagement would contribute to knowledge and practices to foster students' engagement, which in turn would enhance in their academic performance.

2.5.1 Limited studies addressing its multidimensionality

Despite that fact that researchers have recognised the multiple dimensions of academic engagement (Fredricks et al., 2004, 2011; Fredricks et al., 2016; Jimerson et al., 2003; Lam et al., 2014; Lawson & Lawson, 2013; Wang & Degol, 2014), there are limited studies examining all three dimensions of academic engagement in a single study (Fredricks et al., 2005). Rather, the majority of published studies were focused on examining a single dimension of academic engagement, such as the behavioural dimension (González et al., 2015; Salamonson et al., 2009) or the cognitive dimension (Heikkilä et al., 2012; Taasoobshirazi et al., 2016), in which they were found to significantly predicted university students' academic performance. Investigation focusing on a single dimension of academic engagement may overlook the contribution of other dimensions and the inter-relatedness between the three dimensions of behavioural, affective and cognitive engagement involving their mutual influence to each other.

Some studies seemed to adopt a tripartite model to investigate the multiple dimensions of academic engagement, yet they were primarily conducted in secondary school settings (Fredricks et al., 2005; Lam et al., 2014; Lewis, Huebner, Malone, & Valois, 2011; Moreira, Cunha & Inman, 2020; Wang & Eccles, 2012; Wang et al., 2011, 2019), studies in higher education are still focused on either behavioural and/or cognitive engagement (Heikkilä et al., 2012; Sagayadevan & Jeyaraj, 2012; Salamonson et al., 2009; Schlenker et al., 2013; Taasoobshirazi et al., 2016; Walker et al., 2006), with only a few burgeoning studies examining all three dimensions (Bowden et al., 2021; Burch, Heller, Burch, Freed, & Steed, 2015). Researchers argued that it is still unclear how different dimensions of academic engagement contribute to shape the positive educational outcomes (Lawson & Lawson, 2013; Sinatra et al., 2015; Skinner et al., 2008; Skinner & Pitzer, 2012), who thus called for further investigation of academic engagement in three directions: (1) better understanding of the role of individual dimensions; (2) exploring the interrelationships between the dimensions; and (3) investigating whether some dimensions are promoting the others (e.g. affective engagement as the driving force for behavioural and cognitive engagement). To respond to these suggested research directions and to fill the gap of the relatively few studies investigating multiple dimensions of academic engagement, I combined the tripartite model with the contextual framework in the present study to enrich the understanding of the notion of academic engagement in higher education students in Hong Kong.

Some researchers investigated academic engagement in conjunction with other constructs related to student learning, such as self-control and emotions, during which these constructs are found to exert concerted influence on students' academic performance (Chen, 2005; González et al., 2015; King & Gaerlan, 2014; Sagayadevan & Jeyaraj, 2012; Schlenker et al., 2013). For instance, cognitive engagement and

motivation were strongly linked with each other and they significantly predicted academic performance of university students (Taasoobshirazi et al., 2016). In the same study, students' cognitive engagement was found to moderate their enjoyment in study (as a positive emotion), which subsequently promoted students' academic performance. These findings provide valuable evidence supporting that academic engagement serves as a significant predictor of academic performance, regardless when it was examined on its own and when it was investigated with other contextual factors in the teaching and learning environment.

2.5.2 Lack of attention given to affective dimension of engagement

Contrary to the well-established influence of the behavioural and cognitive dimensions on higher education, the affective dimension of engagement has received relatively less attention from the literature (Askham, 2008; Finn & Zimmer, 2012; Kahu, 2013; Pekrun et al., 2002; Wang & Holcombe, 2010). Rather than being examined on its own, affective engagement is investigated collectively with either the behavioural dimension (King & Gaerlan, 2014; Li & Lerner, 2011; Skinner et al., 2008; Skinner, Kindermann, & Furrer, 2009) or the cognitive dimension (Appleton et al., 2006; Maguire, Egan, Hyland, & Maguire, 2017; Pekrun et al., 2002), thus, little is known about the distinctive role of affective engagement in higher education learning. Among those few studies focusing on affective engagement, it was found to mediate lecturer-student interactions, which then promoted academic performance in university students (Sagayadevan & Jeyaraj, 2012).

2.5.3 Academic engagement influenced by contextual factors

Studies showed that academic engagement is responsive to students' personal characteristics and other contextual factors, such as their relationship with lecturers, interest in learning and their levels of positive psychological capacities. First, lecturers were found to play an important role in promoting students' engagement (Bryson &

Hand, 2007; Halm, 2015; Thomas, 2012; Umbach & Wawrzynski, 2005), particularly those who created a supportive learning environment by giving clear instructions, showing their interest in the subject matter and the students (Bryson & Hand, 2007; Pascarella & Terenzini, 2005). Second, interest in learning is an important factor fostering students' academic engagement (Kahu et al., 2017; Kahu & Nelson, 2018; Thomas, 2012) and that interest was triggered by lecturers whom students perceived as enthusiastic, friendly, approachable and knowledgeable (Quinlan, 2019). In other studies, students simply reported they engaged more if they had the autonomy to choose what they would like to learn (Bryson & Hardy, 2012), which was predicted by students' interest and intrinsic motivation in the particular subject matter (Walker et al., 2006). Finally, academic engagement was promoted by PsyCap as a composite construct (Luthans et al., 2016; Siu et al., 2014) and also its individual components, such as self-efficacy (Walker et al., 2006) and hope (Yoon et al., 2015), more detail on PsyCap will be discussed in the next chapter. However, the majority of studies on academic engagement are heavily skewed towards quantitative methods, with inadequate attention given to investigate the processes of engagement experienced by students and how these processes are subject to change, resulting from students' interactions with the academic context. Thus, the present study seeks to respond to the call from researchers who advocated the need to incorporating quantitative and qualitative studies to investigate students' academic engagement experiences holistically (Fredricks, Flisecker et al., 2016), enabling the understanding of the possible variations across different academic contexts.

To sum up, findings from existing studies on academic engagement support that it is important to examine the three dimensions of academic engagement and the underlying processes influencing the changes in students' engagement with their study. The present study seeks to unpack the complexity of academic engagement by

incorporating its indicators and facilitators in the investigation, hoping to reach a more comprehensive understanding of students' academic engagement in higher education.

2.6 Chapter summary

In this chapter, I explained the significance of academic engagement in higher education and drew on literature to delineate researchers' views on the conception of academic engagement. Then, I discussed the features of academic engagement, including its characteristics of being malleable and multidimensional, and that it is reflected as varying strengths on a continuum, which supports the importance to investigate the experiences of academic engagement and how it can be promoted in higher education students. Next, I explained the indicators and facilitators of academic engagement and illustrated how they are reflected in actual academic contexts. After that, I discussed the tripartite model and the contextual framework in examining academic engagement and provided justifications for combining them in the present investigation. First, the tripartite model clearly delineates the three dimensions of behavioural, affective and cognitive engagement with a focus on their measurable indicators, **addressing RQ1 - identifying the relationship between academic engagement and Psychological Capital**. Second, the complexity of academic engagement as a dynamic process is investigated with the use of the contextual framework, which incorporates indicators, facilitators and outcomes of academic engagement. The contextual framework, taking a holistic perspective to investigate academic engagement, allows understanding of its underlying processes and mechanisms and how it is susceptible to contextual influences, **addressing RQ2 - investigating how higher education students in Hong Kong perceived their engagement experiences.** Furthermore, I addressed the complexity of academic engagement in relation to its conceptual clarity and students' disengagement by drawing on the collective views of researchers from the extant studies, supporting the

need to investigate academic engagement by focusing on both its indicators as well as its process involving how it is being influenced by the contextual factors. Then, I presented findings from the extant studies, to support the positive influence of academic engagement on such positive educational outcomes as improved academic performance and some affective outcomes (e.g. positive emotions and enjoyment). Finally, I identified several research gaps identified in the current literature, such as limited studies examining affective engagement of students and investigating the multiple dimensions of academic engagement despite their recognition in the literature.

Chapter 3

Literature Review: The Affective Dimension of Learning

3.1 Overview of the chapter

This chapter aims to explain the linkage between academic engagement, PsyCap and the affective dimension of learning. It is an extension of the previous literature review chapter focusing on academic engagement, during which I noted the under-representation of affective engagement in the higher education literature. Consisting of 7 sections, I will begin this chapter by introducing an integrative framework encapsulating the affective dimension of learning and delineating its relationship with affective engagement. Next, I will discuss each individual components resided in the integrated framework - PsyCap, emotional experiences, interest of students as well as their interactions with lecturers and peers – and explain how they are linked to academic engagement. In light of prior studies reflecting inter-relationship between the individual elements and how they influence students' academic engagement, I will justify the need to investigate them in an integrative framework, which is currently neglected. Finally, I will end the chapter with a discussion on the research gaps identified from the literature review and how those missing links will be addressed in the present study.

3.1.1 An integrative framework of the affective dimension of learning

The affective dimension of learning is concerned with students' emotions, motivation, attitudes, values and beliefs experienced in learning (Debellis & Goldin, 2006; Rogaten et al., 2019; Shephard, 2008; Stabler-Havener, 2014) and it is argued to be central to student learning. Jackson (2015) argued that the affective dimension of learning is influential to determine how students approach their learning, including their levels of engagement; interactions with lecturers and peers as well as academic performance. In spite of its influence, the affective dimension of learning is under-represented in the

literature (Jackson, 2015; Naude et al., 2014; Rogaten et al., 2019; Trigwell et al., 2012), thus, researchers advocated the need for its richer understanding (Beard et al., 2007, 2014; Evans et al., 2015; Jackson, 2015; Rattray, 2016, 2018), particularly in higher education context, where the role of affective elements is neglected. To respond to the call to enrich the current understanding on the affective dimension of learning, in the present study, I formulate the third research question below to examine how affective elements are represented in higher education students in the present research context.

Research Question 3 (RQ3):

How do higher education students in Hong Kong experience and perceive the affective dimension of learning in their academic engagement?

The third research question (RQ3) is an extension of the first two research questions, which focus on the experiences of academic engagement in higher education students in Hong Kong and the relationship with their use of PsyCap. RQ3 aims to explore how higher education students in Hong Kong report and discuss their experience of the affective elements, including but not confined to PsyCap, as students were engaged with their academic work. To facilitate the present investigation addressing multiple affective elements in students' academic engagement, I incorporate them into an integrative framework (Figure 3.1) encapsulating PsyCap, students' emotional experiences, their interest in learning and their interactions with lecturers and peers.

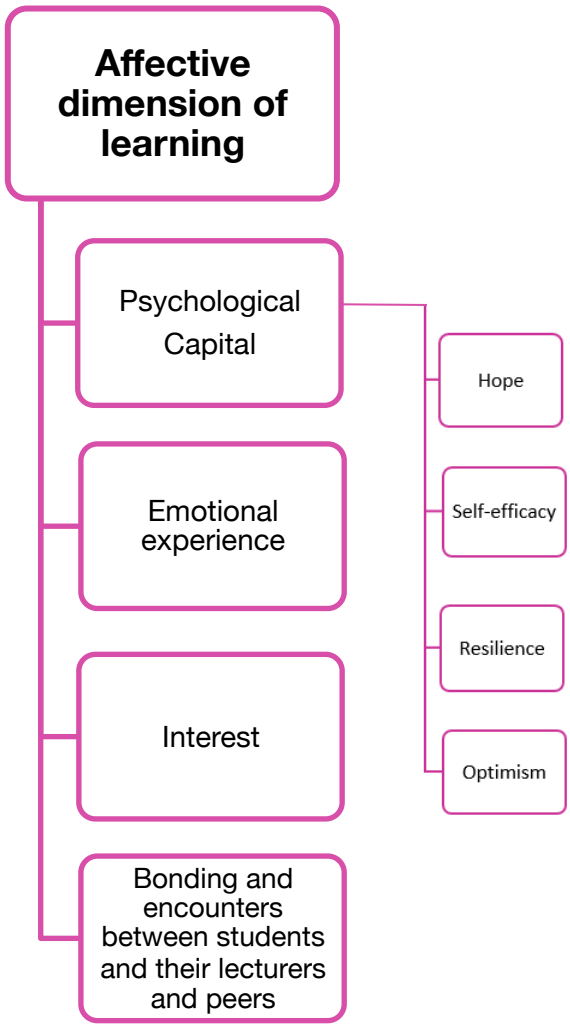


Figure 3.1. An integrative framework encapsulating the affective dimension of learning.

3.1.2 Affective engagement and the affective dimension of learning

Before discussing the individual affective elements, I present the relationship between affective engagement and the affective dimension of learning in Figure 3.2 that they are closely related, yet not equivalent to each other.

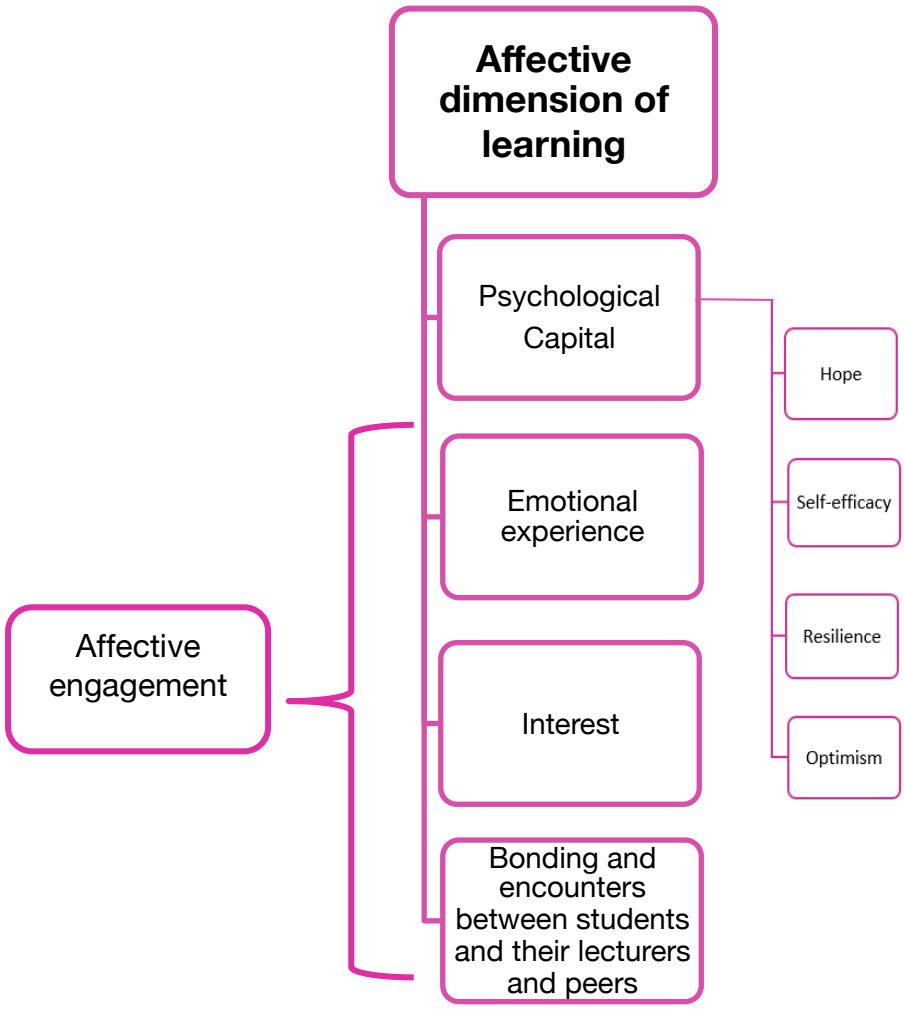


Figure 3.2. Affective engagement as part of the affective dimension of learning.

Affective engagement involves students' affective connections to their academic work, represented by their study-related emotional experiences, interest in learning and their interactions with lecturers and peers (Appleton et al., 2006; Meehan & Howells, 2019; Skinner et al., 2008, 2009), detail discussed in Section 2.3.2. Thus, affective engagement can be understood as one of the components constituting the affective

dimension of learning, whereas this dimension consists of multiple affective components, such as PsyCap (see Section 3.2 for detail). In fact, the conceptualisation of affective engagement was a collective attempt by researchers to combine multiple affective elements (e.g. emotions and interest) to examine their concerted influence on student learning. Despite that attempt, most studies are not focused on investigating affective engagement on its own, but examining it in conjunction with either behavioural or cognitive engagement (Appleton et al., 2006; King & Gaerlan, 2014; King, McInerney, Ganotice, & Villarosa, 2015; Pekrun et al., 2002; Skinner et al., 2008, 2009). Therefore, we still lack comprehensive understanding of the distinctive role of the affective dimension of learning in higher education (Jackson, 2015; Naude et al., 2014; Rogaten et al., 2019; Trigwell et al., 2012) and how the various affective elements are influencing each other in actual academic contexts.

3.1.3 Studies of the individual affective elements and engagement

Review of the literature shows that despite the fact that the affective components in the integrated framework have been investigated individually, they are yet to be examined as a holistic dimension. Prior studies showed that academic engagement was promoted by PsyCap (Luthans et al., 2016; Siu et al., 2014), positive emotions (Pekrun & Linnenbrink-Garcia, 2012; Reschly et al., 2008; Trigwell et al., 2012), students' interest in learning (Ainley, 2006; Ainley & Ainley, 2011), and their interactions with lecturers (Cotten & Wilson, 2006; Farr-Wharton, Charles, Keast, Woolcott, & Chamberlain, 2018; Zepke & Leach, 2010) and peers (Kuh et al., 2006; Moran & Gonyea, 2003). In light of the findings from these burgeoning studies, I present in Figure 3.3 the seemingly inter-relatedness between affective components and thus their influence on academic engagement.

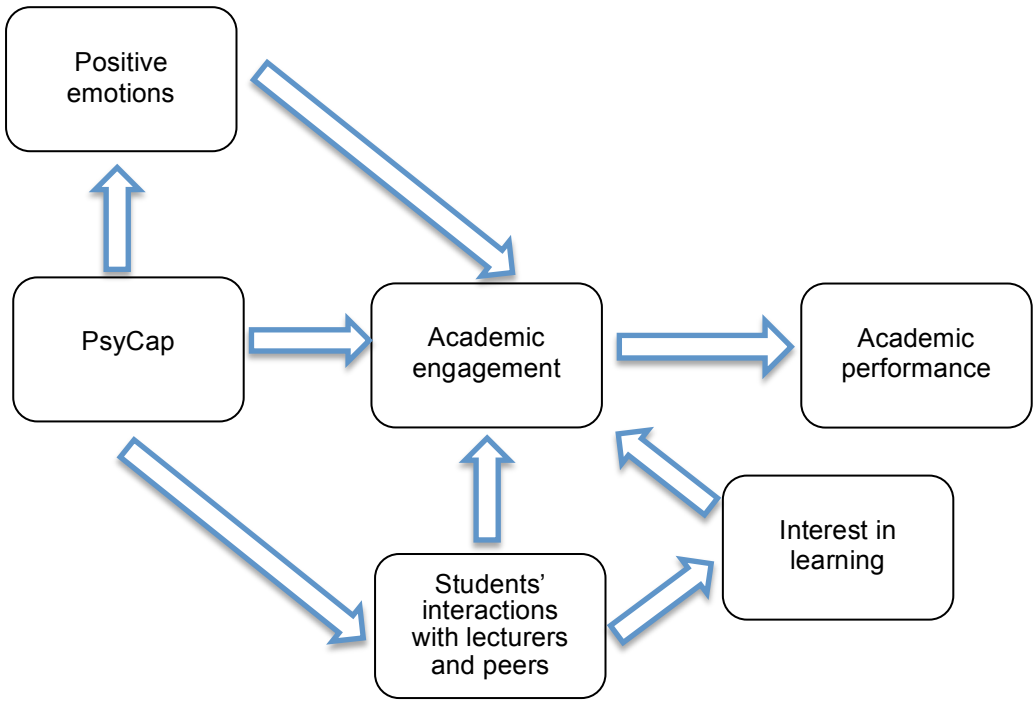


Figure 3.3. The influence of various affective elements on academic engagement.

As show in Figure 3.3, PsyCap was found to mediate students' positive emotions and their interactions with lecturers, which subsequently promoted academic performance (Carmona-Halty, Salanova, Llorens, & Schaufeli, 2021, 2019; Carmona-Halty, Schaufeli, et al., 2019), while at the same time, PsyCap also predicted academic performance directly (Luthans et al., 2012, 2014; Martínez et al., 2019; Ortega-Maldonado & Salanova, 2018). Studies also showed that students experienced positive emotions when they have developed an interest in learning (Ainley, 2006; Ainley, Hidi, & Berndorff, 2002), while that interest was promoted by their interactions with lecturers who were enthusiastic in teaching (Quinlan, 2019). Despite the positive influence of the affective elements found, we are still unsure of their combined influence on academic engagement, thus, more in-depth investigation is essential to unpack such process to reach a more comprehensive understanding of the role of the affective

dimension of learning on academic engagement. In view of this, I propose the integrative framework to incorporate the aforementioned affective elements in the present study to facilitate the investigation of the collective influence of multiple affective components on students' academic engagement to address all three research questions (RQs 1 to 3), which are briefly presented again below for easy reference.

RQ1: What is the relationship between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong?

RQ2: How do higher education students in Hong Kong experience and perceive their academic engagement in study?

RQ3: How do higher education students in Hong Kong experience and perceive the affective dimension of learning in their academic engagement?

3.2 Psychological Capital

Psychological Capital is the first component constituting the integrative framework of the affective dimension of learning. It is developed and originated from positive psychology. After presenting the development of Psychological Capital, I will discuss its characteristics and its influence on students' academic engagement, followed by how this present study would contribute to expand the current understanding of Psychological Capital in higher education. Finally, I will address some limitations of Psychological Capital and how they can be supplemented by other components in the integrated framework encapsulating the affective dimension of learning.

3.2.1 Development of Psychological Capital

Studying in higher education can be demanding and stressful that students will inevitably face some forms of challenges, setbacks and obstacles. Determination and persistence to stay engaged in study requires a myriad of psychological resources, which serve as an impetus for students to sustain their effort, to overcome the challenges in order to achieve their desired academic goals. Psychological Capital (hereafter as "PsyCap") is adopted in the present study to investigate the psychological resources possessed and used by higher education students in their study, considered its benefits to academic performance (Carmona-Halty et al., 2021; Carmona-Halty, Salanova, et al., 2019; Carmona-Halty, Schaufeli, et al., 2019; Luthans et al., 2012, 2014; Siu et al., 2014). PsyCap is defined as:

> "…an individual's positive psychological state of development characterised by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals, and when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success." (Luthans, Youssef, & Avolio, 2007, p.3).

PsyCap was formed by drawing from the positive psychology literature, a stream in psychology focusing on positive human strengths (e.g. hope, optimism), virtues and positive emotions (Peterson, 2006; Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002). The growth of positive psychology has influenced researchers to identify a positive approach to promote better performance outcomes in the workplace. The four psychological resources of ***hope, self-efficacy, resilience and optimism*** were combined to form the composite construct of ***PsyCap***, given they met the inclusion criteria of being positive, measurable, developable and performance-related (Luthans & Youssef, 2004). Thus, PsyCap was originated from positive psychology and initially being adopted in organisational literature that it was found to

predict performance outcomes in the workplace (Avey, Luthans, Smith, & Palmer, 2010; Du Plessis & Boshoff, 2018; Luthans, Avolio, Avey, & Norman, 2007). The growing influence of PsyCap has attracted interest from educators to examine its influence in academic settings (Fati et al., 2019; Searle, 2010; Siu et al., 2014), where it was also found to predict positive educational outcomes in university students (to be discussed later in this paragraph). In addition, the four components of PsyCap, i.e. hope, self-efficacy, resilience and optimism have also established positive links with positive educational outcomes in prior studies when they were investigated as individual components. For instance, academic performance of university students was predicted by hope (Day, Hanson, Maltby, Proctor, & Wood, 2010; Rand, Martin, & Shea, 2011), self-efficacy (Chemers, Hu, & Garcia, 2001; Robbins, Lauver, Le, Davis, & Carlstrom, 2004), resilience (Allan, Mckenna, & Dominey, 2014) and optimism (Nes & Segerstrom, 2006; Singh & Jha, 2013) respectively. Combining the four components, PsyCap is arguably exhibiting a greater influence on performance outcomes than having its individual components being examined separately (Luthans, Avolio, et al., 2007), as a result of the cumulative influence of the PsyCap components. Emerging studies investigating PsyCap a composite construct in academic setting have also indicated its positive association with academic performance (Luthans et al., 2012; Luthans, Avolio, et al., 2007; Siu et al., 2014) and academic engagement (Luthans et al., 2016; Siu et al., 2014), supporting its relevance in educational contexts.

3.2.2 PsyCap components: hope, self-efficacy, resilience and optimism

I use Figure 3.4 as a illustration to unpack PsyCap, a composite construct consisting of four components: hope, self-efficacy, resilience and optimism and explain their influence on academic engagement and other positive educational outcomes in higher education students when they are examined in prior studies.

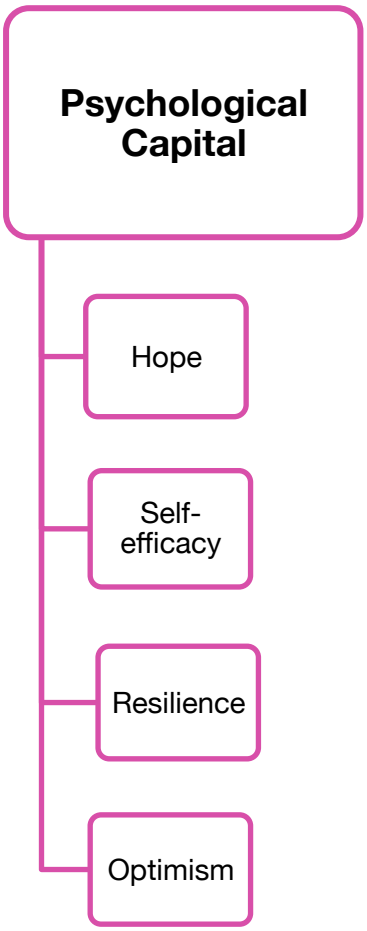


Figure 3.4. The four components of Psychological Capital.

3.2.2.1 Hope

Hope, being the first component of PsyCap, is defined as individuals' perceived capability to derive multiple ways **(pathways)** and to motivate themselves **(agency)** to use those pathways to achieve desired goals (Snyder, 1995, 2002). The agency in hope reflects individuals' determination to begin and sustain their effort in the process of achieving the desired goals, whereas pathways reflect individuals' perceived ability to produce one or more workable routes to reach the goals (Snyder et al., 1991; Snyder, Rand, et al., 2002). People with higher levels of hope typically set specific goals and formulate multiple plans and strategies to achieve those desired goals. When the original pathway is blocked, high-hope individuals are able to generate alternate

pathways and get re-energised with their agency to reach the desired goals in spite of the obstacles they face (Snyder, Rand, et al., 2002). High-hope individuals view obstacles in the process as challenges and tend to overcome them by employing alternative pathways (Snyder, 2002). Therefore, the determination to achieve a desired goal (agency) and the ability to employ multiple pathways (hope pathways) are positively reciprocal to each other (Snyder, 1995; Snyder et al., 1991) that they strengthen each other in the process of goal-pursuit.

Hope is considered as beneficial to students' academic engagement in that the determination to persist (agency) in learning and the ability to develop and employ multiple pathways are necessary to achieve challenging academic tasks. Studies have revealed that hope has predicted academic performance in university students directly (Buckelew, Crittendon, Butkovic, Price, & Hurst, 2008; Davidson, Feldman, & Margalit, 2012; Day et al., 2010; Feldman, Davidson, & Margalit, 2015; Rand et al., 2011; Snyder, Shorey, et al., 2002) and also indirectly through enhancing the expectancy of goal attainment, which in turn predicted better academic performance (Feldman, David, Rand, & Kahle-Wrobleski, 2009; Rand, 2009). Higher levels of hope predicted the academic engagement of university students and subsequently their academic performance (Yoon et al., 2015).

In another study, hope has promoted engagement of academically at-risk students after a course targeting the enhancement of study skills (e.g. time management skills and test-taking strategies) with the aim to promote their academic success (Seirup & Rose, 2011). Among students who completed the study skills training, those who reported high levels of hope were likely to apply the skills learned from the course (as multiple pathways) in their study in the next term, benefitting their academic performance. Other studies showed that hope intervention training was effective to promote the levels of hope in university students (Cheavens, Feldman, Gum, Michael,

& Snyder, 2006; Davidson et al., 2012; Feldman et al., 2015; Feldman & Dreher, 2012), during which they were guided to set academic goals and received some psycho-education concerning the meaning and influence of hope (Feldman & Dreher, 2012). Results showed that students' levels of hope were enhanced after the training, which further promoted their subsequent academic performance (Davidson et al., 2012; Feldman et al., 2015). Therefore, hope can be promoted by strengthening students' agency, their ability to develop alternate pathways to achieve goals and regulatory strategies to monitor their study, illuminating possible practices for educators who are interested to foster students' engagement and performance in their study.

3.2.2.2 Self-efficacy

The second component of PsyCap, self-efficacy, refers to individuals' confidence to invest the necessary effort to succeed at challenging tasks (Luthans, Youssef, et al., 2007). It is adopted from Bandura's (1986, 1997) concept of self-efficacy, denoting individuals' belief in their capabilities to organise and execute actions in order to produce desired results successfully. In academic settings, self-efficacy is represented by students' perceived ability to perform academic tasks and achieve their academic goals (Robbins et al., 2004; Schunk, 1991). The levels of self-efficacy influence the decisions of students made in study, such as how they set their academic goals and plan their strategies to persist in their study in order to achieve the set goals (Bandura, 1986, 1997).

Self-efficacy was consistently found to positively influence academic performance in university students (Bong, 2001; Chemers et al., 2001; Drysdale & Mcbeath, 2018; Feldman & Kubota, 2015; Gębka, 2014; Robbins et al., 2004; Valentine, Dubois, & Cooper, 2004) that the self-efficacious students tend to set more challenging academic goals with their self-perceived confidence to succeed in academic tasks. They also reported using more self-regulated strategies (Robbins et al., 2004), such as planning

and organising their academic activities, to monitor and sustain effort in their goal pursuit, which in turn may lead to better academic performance. More pertinent to the present study, in their meta-analysis of over 26 studies, Chang and Chien (2015) have found a consistent and positive relationship between students' self-efficacy and their academic engagement over 26 studies across various levels of education, including primary schools, secondary schools and universities (Galla et al., 2014; Vera, Blanc, Taris, & Salanova, 2014), reinforcing the important influence of self-efficacy on academic engagement of students. In higher education specifically, a reciprocal relationship was found between self-efficacy and academic engagement of university students (Schunk & Mullen, 2012) that self-efficacy promoted students' engagement, while students' increased engagement also strengthened their self-efficacy further in their study. Additional studies also revealed the positive links between students' self-efficacy and their specific dimensions of engagement, in that self-efficacious students were reported to be more participative in class activities (Galyon, Blondin, Yaw, Nalls, & Williams, 2012), more likely to adopt a deep approach to learning (Diseth, 2011; Drysdale & Mcbeath, 2018; Phan, 2010) and self-regulation strategies (Trigwell & Ashwin, 2005) in their study. These findings indicate that self-efficacious students were more engaged behaviourally (active class participation) and cognitively (use of a deep approach to learning and self-regulation strategies) in learning, offering a solid base of evidence for further investigation of self-efficacy as part of PsyCap. However, we do not know much about whether self-efficacy is also linked with affective engagement, which is currently under-researched in the existing studies, reinforcing the need to further investigate the relationship between individual dimensions of academic engagement and that of PsyCap.

3.2.2.3 Academic Resilience

The third component constituting PsyCap is resilience, which can be understood as a strengthened competence amid adversities. Originating from clinical psychology, resilience reflects the ability of individuals to adapt positively in their life despite significant adversities or risks (Masten, 2001; Masten & Reed, 2002). It involves a dynamic process influenced by both contextual factors and existing psychological characteristics of individuals (Luthar, Cicchetti, & Becker, 2000). Adopting from this conceptualisation, Luthans (2002) has modified and defined resilience in PsyCap as "positive psychological capacity to rebound, to bounce back from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility" (p.702). In the present study, I would use "academic resilience" to focus on students' resilience happening in the academic setting, differentiating from the resilience associated with the clinical setting, which involves greater severity of life adversities than those challenges students encounter in their day-to-day study life. Academic resilience is indeed relevant to all students because at some point in their course of study, all students may experience some levels of adversities and challenges (Martin & Marsh, 2006).

In a later study, Martin and Marsh (2008) proposed a concept of "academic buoyancy", which closely resembles academic resilience, except that it is focused on moderate setbacks, such as competing deadlines and exam pressures. Academic buoyancy was also positively associated with academic performance (Putwain & Daly, 2013), however, in the present study, I will keep the term "academic resilience" in the investigation, with the following considerations. First, academic buoyancy is a relatively recent concept that is less investigated comparing to academic resilience, which covers a broader range of literature, enabling a richer understanding of the concept. Second, Martin and Marsh (2008, 2009) also recognised an enhanced

academic buoyancy will strengthen students' academic resilience to prepare them to handle more substantial adversities, i.e. academic resilience in students also contains academic buoyancy. Such hierarchy from academic buoyancy to academic resilience is also supported by researchers who suggested a varying intensity of adversities ranging from moderate to strong (Davydov, Stewart, Ritchie, & Chaudieu, 2010). Furthermore, using "academic resilience" keeps the use of terminology consistent with the PsyCap framework I adopt in the present study. To sum up, academic resilience and academic buoyancy are conceptually similar that both reflect how students overcome challenges and difficulties they encounter in study despite their varying intensities. It is therefore appropriate to use the term "academic resilience" in the present study to investigate students' persistence and bouncing back from challenges and setbacks in the pursuit of their academic goals.

Fletcher and Sarkar (2013) reviewed resilience studies and found that resilience is recognised by researchers as a dynamic process, which changes over time, resulting from individuals' effort to overcome adversities and challenges (Richardson, 2002; Rutter, 2006, 2012). Resilient individuals tend to see those challenges as opportunities to sustain their effort and succeed in the future (Luthans, Vogelgesang, & Lester, 2006), which may lead to positive gains (Bonanno, 2004), such as an enhanced resilience and more effective use of strategies and coping for future adversities. Richardson (2002) argued that resilience can be developed proactively when individuals intentionally choose challenges over routines, which was also supported by other researchers who suggested the need to study the mechanisms underlying academically resilient students' challenge-seeking tendency (Dweck & Yearger, 2019), hoping to enrich the current understanding of the notion of academic resilience. For instance, students who choose to work on assignments with challenging and unfamiliar topics are likely to experience stress and uncertainties (i.e. adversities) because of the limited knowledge

on the topic. These students are thus required to stretch out their comfort zone to seek understanding of the challenging topic and the associated course materials. The competencies students developed to overcome those challenges are likely to strengthen their academic resilience, which may become important assets for them to cope with stress in later challenges and obstacles. More studies showed that individuals would exhibit resilience if they evaluate stressors in a demanding environment as an opportunity for personal development (Fletcher & Sarkar, 2013). These findings were further supported by Rattray (2016, 2018), who commented that academic resilience and hope are unlikely to be fostered if students only encounter limited challenges in their learning. Therefore, academic resilience can be developed more effectively when students choose to step out of their comfort zone, during which they overcome challenges and obstacles while interpreting them as learning opportunities for future success. Indeed, a critical aspect of students' tenacity in their academic work depends on their ability to respond to academic setbacks with their resilience (Dweck, Walton & Cohen, 2014) and this process is very commonly seen in higher education learning, during which students are likely to encounter unknowns and uncertainties in the pursuit of knowledge, academic goals or even their personal goals.

Existing studies show that academically resilient university students tend to perform better academically with their ability to bounce back from setbacks and challenges (Allan et al., 2014) and their academic resilience influenced their use of self-regulatory strategies (Johnson, Taasoobshirazi, Kestler, & Cordova, 2015) to persist further in their study despite setbacks. Resilience is also found in academically engaged students whom perceived difficulties as useful to enhance their success of achieving academic goals (Hensley et al., 2015; Richards et al., 2013) and to develop coping strategies for future difficulties in study. Interestingly, despite describing their engagement in

learning as sometimes "unpleasant", difficult, stressful and uncomfortable moments, the academically resilient students expressed their acceptance of those "unpleasant" and short-term costs for the long-term benefits of learning (Hensley et al., 2015), supporting earlier studies which suggested the positive gains resulting from the academic resilience students developed after they have overcome the academic challenges (Bonanno, 2004; Luthans et al., 2006). These studies were also supported by findings from researchers who argued that academic resilience as students' interpretation of the adversities they faced in their study (Yeager & Dweck, 2012), which is possibly malleable and context-specific.

3.2.2.4 Optimism

Optimism, the fourth component of PsyCap, is concerned with "making a positive attribution about succeeding now and in the future" (Luthans, Youssef, et al., 2007, p.3). It draws on the works of earlier researchers who proposed **a positive outcome expectancy** (Carver & Scheier, 2002) and **a positive explanatory style** (Seligman, 2006) when individuals make sense of outcomes of their life events. Carver and Scheier (2002) explained optimism as individuals' expectancy of positive outcomes with a belief that good things will happen in the future. In academic settings, optimistic students with an expectancy of positive outcomes in their study tend to be more motivated and invest greater effort in pursuing their academic goals, which in turn is likely to lead to better academic performance.

Another element in optimism involves individuals' tendency to interpret life events using a positive explanatory style (Seligman, 2006) that optimistic individuals tend to attribute positive events to internal, permanent and pervasive causes while interpreting negative events to external, temporary and situation-specific ones. In academic settings, optimistic students with a positive explanatory style tend to believe their academic success is likely to happen again across different contexts as they

interpret those successes as a result of their own abilities, which are stable across various contexts. When facing setbacks in study, such as unsatisfactory academic results, optimistic students tend to externalise those failures to circumstances rather than their own abilities that they interpret the failures as temporary and situation-specific. Thus, the optimistic students tend to overcome the frustrations associated with failures and stay persistent in pursuing their academic goals.

Several studies revealed the positive link between optimism and academic performance of university students (Chemers et al., 2001; Nes, Evans, & Segerstrom, 2009; Ruthig, Perry, Hall, & Hladkyj, 2004; Singh & Jha, 2013; Tschannen-Moran, Bankole, Mitchell, & Moore, 2013; Valentine et al., 2004) that the optimistic students tend to outperform their pessimistic peers. The better academic performance found in these findings may be related to the positive outcome expectancy in the optimistic students, who are likely to exert more effort and stay motivated to pursue academic goals as they expect the likelihood for academic success, i.e. good things are likely happen. The linkage between optimism and students' academic performance can also explained by the more frequent use of self-regulated learning strategies in optimistic students in their study (Heikkilä et al., 2011), which helped students monitor their study progress and persist in study despite obstacles.

Nevertheless, when optimism was being investigated together with hope and self-efficacy, it did not predict academic performance in university students (Feldman & Kubota, 2015). This contrasting finding from previous studies suggests the role of optimism in students' academic performance may vary across contexts and its influence maybe less prominent in the presence of other stronger predictors of academic performance. The mixed findings suggest that further investigation is required to understand the role of optimism on students' learning experience. Despite the mixed findings of the predictive role of optimism on academic performance of

university students, it was positively linked with other aspects benefitting student learning. For instance, Nurttila, Ketonen and Lonka (2015) found that university students with higher levels of optimism reported higher levels of academic engagement and competence. Optimistic students were also found to have better psychological adjustment in their first year of study (Brissette, Scheier, & Carver, 2002), lower levels of anxiety (Singh & Jha, 2013) and employed more effective coping strategies (Nes & Segerstrom, 2006), which are also some favourable resources promoting students' academic engagement. These findings have also revealed a future orientation of optimism as students reported sustaining their effort and persistence in pursuit of academic goals.

3.2.3 Significance of PsyCap

To sum up, it is evident that PsyCap is influential in promoting positive educational outcomes, as reflected in findings from prior studies investigating hope, self-efficacy, academic resilience and optimism as separate components. As a composite construct, PsyCap is found to be a significant predictor of positive educational outcomes in higher education, such as academic performance (Fati et al., 2019; Searle, 2010; Siu et al., 2014). Studies of PsyCap indicate its positive association with academic engagement (Fati et al., 2019; Luthans, Luthans, & Chaffin, 2019; Luthans et al., 2016; Martínez et al., 2019; Siu et al., 2014), academic performance (Luthans, Luthans, & Avey, 2014; Luthans et al., 2012; Martínez et al., 2019; Ortega-Maldonado & Salanova, 2018) and psychological wellbeing of university students (Nafees & Jahan, 2017; Ortega-Maldonado & Salanova, 2018; Riolli, Savicki, & Richards, 2012; Selvaraj & Bhat, 2018).

A reciprocal and positive correlation between PsyCap and academic engagement was identified in Hong Kong university students (Siu et al., 2014), this finding is considered as pertinent to the present study in two ways. First, it shares a similar academic

context in terms of levels of education (higher education) and cultural context (Hong Kong) as the present study. Second, the established reciprocal relationship between PsyCap and academic engagement supports the malleable nature of both constructs that changes in one of them could promote changes in another one. The study by Siu et al. (2014) is focused on measuring the indicators of PsyCap and academic engagement, whereas the present study takes a holistic approach to examine the underlying processes and factors influencing the two constructs. In addition, participants of the present study were students from Associate Degree and Top-up Undergraduate Degree programmes from a private university in Hong Kong, who are academically less competent (context of study discussed in 1.4.1) than the students registered in full-degree programme in the study conducted by Siu and colleagues (2014). This population of students in the present study deserves more attention of investigation as academic engagement was found to be more beneficial among students who are academically less prepared (Pascarella & Terenzini, 2005).

3.2.4 Characteristics of PsyCap

3.2.4.1 PsyCap being malleable

PsyCap is a malleable psychological state, which is open to development and susceptible to contextual influences (Luthans, Avey, Avolio, & Peterson, 2010; Luthans & Youssef, 2007; Luthans, Youssef, et al., 2007). Studies reported changes in students' level of PsyCap after attending Psychological Capital Intervention (PCI) training (Luthans, Avey, Avolio, Norman, & Combs, 2006), during which participants in the treatment group received training to enhance their PsyCap while those in the control group did not (Luthans, Avey, et al., 2006). Results showed that university students who received the PCI training showed a significant increase in their levels in PsyCap (Dello Russo & Stoykova, 2015; Ertosun, Erdil, Deniz, & Lütfihak, 2015; Luthans et al., 2010, 2014), which predicted their subsequent academic performance (Luthans et al.,

2014). The effectiveness of PCI training provides evidence to support the malleable nature of PsyCap that promoting PsyCap in higher education students can be an effective practice to foster students' academic engagement.

3.2.4.2 PsyCap components: interdependent yet distinctive

Researchers argued that individuals reporting higher levels of PsyCap typically share an "internalised agency, motivation, perseverance and success expectancies" (Avey, Luthans, & Youssef, 2008, p.438), suggesting the interdependence between its four components. When the PsyCap components of hope, self-efficacy and optimism were studied collectively, they were found to influence each other (Davidson et al., 2012; Feldman et al., 2015) that levels of the three components were all enhanced after a hope intervention training, which subsequently promoted students' academic performance. Similarly, hope was also found to predict self-efficacy in university students and they both collectively predicted better academic performance (Feldman & Kubota, 2015). Luthans, Vogelgesang & Lester (2006) also supported this mutual influence between PsyCap components by arguing that academic resilience draws on hope, self-efficacy and optimism as the different pathways to bounce back from adversity.

These findings are in line with the argument suggesting that PsyCap as a composite construct, has greater predictive power on performance outcomes than having its four components being measured individually (Luthans, Avolio, et al., 2007). I will explain how the components of PsyCap can possibly exert greater concerted influence on goal pursuit, thereby academic engagement and academic performance. For instance, self-efficacious students tend to set more challenging academic goals as they are confident in their abilities to complete challenging academic tasks. With the challenging goals set, students are more likely to face obstacles and difficulties, providing a situation for students to develop their academic resilience, who tend to overcome and interpret the

challenges as valuable learning opportunities, and then internalised those challenges as their personal resources to cope with future adversities. As for students reporting higher levels in optimism, they tend to internalise academic success to their own abilities and expect positive outcomes will happen, thus are more likely to persist in the pursuit of academic goals (hope agency) by employing multiple strategies (hope pathways). The success resulting from the ability to employ various strategies to accomplish the academic tasks may further strengthen the positive outcome expectancies, i.e. optimism and hope are influencing each other.

The cumulative influence of the PsyCap components can be explained by the argument that psychological resources tend not to exist in isolation, but linked to other resources (Hobfoll, 2002), for "there is a general tendency for enrichment of resources among those [individuals] who possess a solid resource reservoir" (p.318). This resource gain is supported by findings from Llorens et al. (2007), whom suggested a spiral effect between personal resources like self-efficacy and academic engagement. When students believed they had the personal resources to complete a task, their self-efficacy grew and subsequently their academic engagement was also enhanced. Thus, students who have developed one form of psychological resources, such as academic resilience in PsyCap, are likely to activate a growth in more resources, such as hope and self-efficacy, spiralling up to an aggregate of "resource reservoir" (Hobfoll, 2002, p.318), which provide them energy to solve the problems they face in their study.

Despite their interdependence, the PsyCap components are conceptually distinctive from one another (Dawkins, Martin, Scott, & Sanderson, 2013; Luthans, Avolio, et al., 2007) as discussed in the previous sections. For instance, hope distinguishes itself from optimism and self-efficacy in that hope involves both the motivation and determination (hope agency) and the use of multiple strategies (hope pathways) in achieving goals (Snyder, 1995, 2002). Another example is the differentiation between

self-efficacy and optimism that despite they share a positive expectation of outcomes, for self-efficacy emphasises individuals' self-perceived abilities to accomplish the specific tasks, whereas for optimism, the positive outcome expectation could exist in individuals without having to consider their abilities. In the present study, PsyCap is examined as both an composite construct and individual components, with the aim to achieve a richer understanding of its role in academic engagement (Dawkins et al., 2013).

3.2.4.3 PsyCap: indicators, processes and facilitators

Most published PsyCap studies in higher education are quantitative and they are focused on investigating its indicators to reveal its relationship with other academic outcomes. For instance, a positive link was found between PsyCap and academic engagement (Fati et al., 2019; Luthans et al., 2016; Siu et al., 2014), i.e. students reporting higher levels of PsyCap tend to be more engaged in their study. However, this correlation is not sufficient to explain the underlying processes of how PsyCap influences the academic engagement of students or vice versa. Also, PsyCap is arguably malleable and susceptible to contextual influences (Luthans et al., 2010; Luthans & Youssef, 2007; Luthans, Youssef, et al., 2007), however, little is known about how it is influenced by contextual factors, for students' experiences of PsyCap are currently under-examined (Newman, Ucbasaran, Zhu, & Hirst, 2014).

To understand the notion of PsyCap in greater depth, I used a mixed methods approach (detail will be discussed in Chapter 4) to incorporate both indicators and facilitators of PsyCap in the present investigation, which is also a response to the call by researchers who argued that using mixed methods studies is conducive to enrich the current understanding of PsyCap (Luthans & Youssef-Morgan, 2017; Youssef-Morgan, 2014). Although there are limited studies investigating the facilitators of PsyCap, prior studies have revealed how its individual components such as self-

efficacy and academic resilience can be facilitated by contextual factors. Bandura (2008) found that self-efficacy can be enhanced by students' own successful experiences; observation of successful experience from their similar peers or in similar context (vicarious learning); and receiving positive feedback from others (e.g. lecturers). Another study revealed that positive emotions, particularly students' enthusiasm towards study, enhanced their academic engagement, which then promoted their self-efficacy (Salanova, Llorens, & Schaufeli, 2011). These findings indicate that students' self-efficacy is susceptible to contextual influences such as students' prior successful experiences, their enthusiasm in learning and their interactions with others, e.g. receiving positive feedback from lecturers and observing peers accomplishing academic tasks. As for academic resilience, university students reported that the support from their lecturers and peers as important to sustain their academic resilience to overcome challenges they face in their study (Hensley et al., 2015; Leary & Derosier, 2012; Richards et al., 2013). They also recognised that their self-reflection on how they overcame the difficulties and obstacles contributed to improving coping strategies to handle future challenges. Furthermore, these students reported a positive evaluation of difficulties and transformed them as useful learning experience for the future challenges despite the discomfort and frustrations experienced. These findings also reflect the role of hope implicitly as students reported improving their coping strategies after encountering difficulties in their study, resembling the development of multiple pathways, a characteristic of hope as students work towards reaching their academic goals.

To sum up, these studies indicate the positive influence of the support from lecturers and peers (Hensley et al., 2015; Leary & Derosier, 2012; Richards et al., 2013) as well as students' own experience and evaluation of the circumstances are effective in enhancing two PsyCap components - self-efficacy and academic resilience - in

university students. To examine more in-depth understanding of how PsyCap is represented in students' engagement experiences and how it is influenced by the contextual factors, the present study seeks to investigate PsyCap by exploring its indicators, facilitators, processes and outcomes, adding more fine-tuned understanding to the current literature.

3.2.5 Limitations of PsyCap

Despite its influence on promoting academic engagement and academic performance in university students, the conceptualisation of PsyCap may not be able to address some areas in student learning. The levels of PsyCap reflect students' appraisal of their capacity of psychological resources when they are pursuing academic goals and persisting in their study, yet, those levels of PsyCap do not necessarily reflect students' actual academic skills to complete their academic tasks. Rather, PsyCap was found to act as a mediator to influence the development of study-related skills, such as coping strategies (Nes & Segerstrom, 2006), to equip students to sustain effort in their study. Next, PsyCap gives limited recognition to the role of emotions explicitly, which seem to be reported as a by-product of the accomplishment of academic goals and expectation of possible future success (Avey et al., 2008). In fact, positive emotions, such as excitement and enjoyment, were reported in high-hope students, possibly related to their better sense of control over their environment (Snyder, 2002; Snyder, Rand, et al., 2002), facilitated by their determination to succeed and ability to employ multiple pathways. In addition, some findings revealed that positive emotions were found to promote hope, self-efficacy and optimism in students (Ouweneel, Le Blanc, & Schaufeli, 2011, 2014; Ouweneel, Schaufeli, & Le Blanc, 2013). Similarly, PsyCap was reported to mediate positive emotions, which in turn promoted academic performance in secondary school students (Carmona-Halty, Salanova, et al., 2019), however, further investigation is needed to examine if there are similar findings in higher education

students. Still, these findings suggest PsyCap is linked with emotions and possibly with other affective elements of learning despite they are not explicated in the studies of PsyCap. In the coming sections, I will discuss how the formulation of the integrative framework of the affective dimension of learning seeks to address the limitations of PsyCap, particularly the relatively lack of attention for the affective elements, e.g. emotional experiences of student learning.

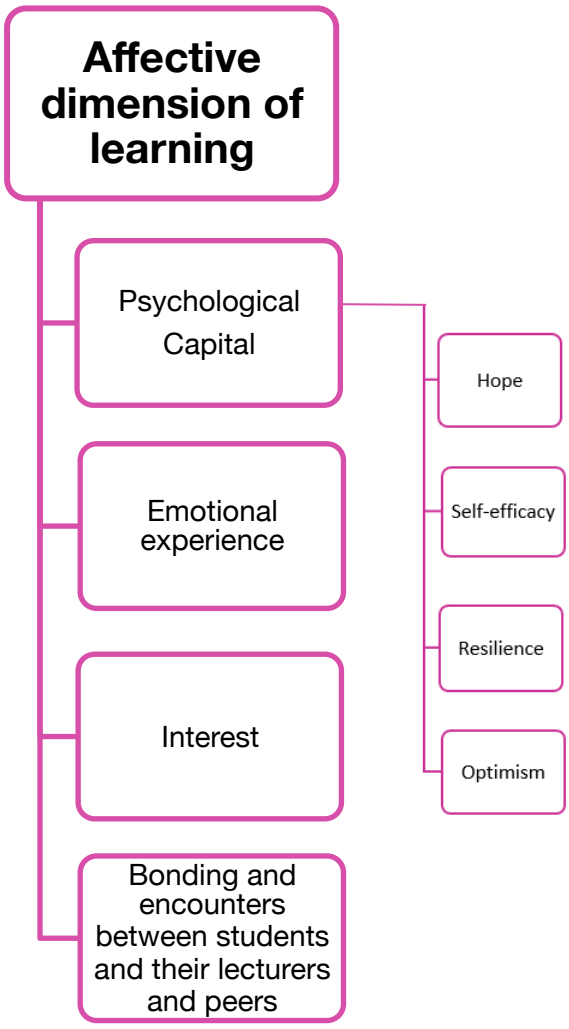


Figure 3.1. An integrative framework encapsulating the affective dimension of learning.

3.3 Emotions in student learning

The second element in the integrated framework of the affective dimension of learning) is students' study-related emotional experiences (copied Figure 3.1 here for easy reference). Blackie et al. (2010) argued that the way how students interact with knowledge is "emotionally charged" and advocated the need for educators to "pay attention to the emotional side of education" (p.641) if they want to enrich students' learning experiences. Their view was supported by other researchers who called for the need to establish a richer conceptual understanding of the role of emotions in student learning (Beard et al., 2014; Efklides & Volet, 2005; Goodwin, 2018; Jackson, 2015; Kahu, 2013; Linnenbrink-Garcia & Pekrun, 2011; Pekrun, 2006; Quinlan, 2016), considering its influence on the quality of student learning in higher education (Askham, 2008; Dirkx, 2001; Moore & Kuol, 2007a). Some of them suggested the investigation of the affective dimension of learning through "exploration, expression and acceptance of emotions and feelings of [the] self and others in ways that contribute to learning" (Beard et al., 2007, p.240), as there is an "emotional intensity attached to the experience of learning" (Askham, 2008, p.94), expressed in terms of positive or negative emotions, particularly when students interact with their lecturers and peers. For example, when approaching difficult learning materials, students may experience changes in their emotions, such as from frustration to excitement, as they manage to overcome those challenging concepts and progress from confusion to understanding with persisting effort. Students also experienced positive emotions when they have made progress in their academic tasks, such as completing their assignments and receiving positive feedback about their assessments from lecturers (Beard et al., 2014). Amid existing studies, a positive link was found between positive emotions and academic engagement (Ainley et al., 2005; Efklides & Petkaki, 2005; King et al., 2015;

Linnenbrink-Garcia & Pekrun, 2011; Pekrun & Linnenbrink-Garcia, 2012; Taasoobshirazi et al., 2016), academic performance (Pekrun & Linnenbrink-Garcia, 2012; Taasoobshirazi et al., 2016; Trigwell et al., 2012), motivation (Pekrun, 2006; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011; Pekrun et al., 2002) and students' interest in learning (Ainley, 2006; Ainley et al., 2002). Positive emotions (e.g. enjoyment) were found to promote cognitive engagement, including the enhanced use of learning strategies (Taasoobshirazi et al., 2016), self-regulated learning (Pekrun et al., 2002, 2011; Pekrun & Linnenbrink-Garcia, 2012) and a deep approach to learning (Trigwell et al., 2012). However, we do not know much about the underlying process of how students' emotional experiences have influenced their academic engagement and academic performance (Linnenbrink-Garcia & Pekrun, 2011). This missing gap is addressed in the present study as respondents recalled their experiences of engagement in detail.

Pekrun and colleagues (2002, 2006) proposed four categories of emotions to illustrate their linkage with motivation, academic engagement and academic performance of students. The four categories of emotions are: (1) positive activating (2) positive deactivating (3) negative activating; and (4) negative deactivating. First, positive activating emotions (e.g. enjoyment, excitement) were found to promote students' interest, intrinsic motivation and extrinsic motivation, facilitate the use of learning strategies and support self-regulation learning (Pekrun et al., 2002, 2011). Thus, positive activating emotions are also likely to promote academic engagement, as reflected in enhanced use of learning strategies and self-regulation (indicators of cognitive engagement). Those positively activating emotions were also found to enhance students' interest and motivation, which are also positively linked with academic engagement (Ainley, 2006; Ainley & Ainley, 2011; Hu & Kuh, 2002; Siu et al., 2014; Walker et al., 2006). Conversely, negative deactivating emotions (e.g. boredom

and hopelessness) tend to diminish students' motivation both intrinsically and extrinsically (Pekrun et al., 2002, 2011) and they were associated with lower levels of engagement. As for negative activating emotions (e.g. anger, anxiety and shame) and positive deactivating (e.g. relaxation), they showed more ambivalent patterns in their influence on student learning. For instance, anxiety and shame (negative activating emotions) were found to undermine intrinsic motivation and self-regulation (i.e. cognitive engagement), yet they were related positively to extrinsic motivation. This implied that students who experienced anxiety and shame in their study may get motivated extrinsically and invest more effort on their study to avoid failure in the future (Pekrun et al., 2002, 2011). Another interesting finding showed that shame was negatively associated with self-efficacy, but positively with resilience in some students (Turner & Husman, 2008; Turner et al., 2010). These mixed findings suggest that the role of emotions on academic engagement is complex and dynamic, e.g. negative emotions are not always detrimental to student learning. More in-depth investigation is required to examine how these variations happen, for example, the shame resulted from an unsatisfactory result (i.e. short-term and specific shame) and the persistent shame experienced by students may have different implications on their engagement. As for positive deactivating emotions (e.g. relaxation), an initial investigation suggested that they may not promote academic performance immediately, yet possibly reinforcing students' motivation to invest effort in learning in the long-term (Pekrun et al., 2002), however, there are yet to have conclusive findings. Pekrun's model revealed a consistent and positive influence of positive emotions on academic engagement in both university students (Garn, Simonton, Dasingert, & Simonton, 2017; Kahu, Stephens, Leach, & Zepke, 2015; King & Gaerlan, 2014) and school students (Linnenbrink-Garcia & Pekrun, 2011; Pekrun, Lichtenfeld, Marsh, Murayama, & Goetz, 2017), offering a strong evidence for an influential role of emotions on academic

engagement.

Kahu et al. (2015) adopted Pekrun's four categories of emotions to interpret findings in their study of university students and commented that it was not always straightforward to distinguish between activating and deactivating positive emotions. For instance, when a student reported being reasonably happy after attaining 67% of marks from the assessment, Kahu and colleagues raised their uncertainty about whether classifying that emotional experience as an "activating pride" or "deactivating contentment", which were theorised as having different influence on student learning. This example is in line with the complexity of study-related emotions (Pekrun, 2006; Pekrun et al., 2002, 2011) and it also suggests the importance to attend to how students perceive and interpret their own emotional experiences relating to study, so that the role of emotions in learning can be understood in finer detail from students' perspectives (Moore & Kuol, 2007a).

In the present study, I incorporate Pekrun's interpretation of emotions and Kahu's approach to investigate students' emotional experiences and their academic engagement. In fact, Pekrun et al. (2011) showed that students are more likely to experience enjoyment when they feel competent to master the learning materials (i.e. self-efficacy) and when they perceive those materials as valuable. This linkage between positive emotions, self-efficacy and personal value needs further investigation and it also suggested the inter-relationships between the various affective components, supporting the need to investigate them as an integrated framework.

3.4 Interest of students in learning

Students' interest in learning was found to positively linked with academic engagement (Ainley, 2012; Harackiewicz, Smith, & Priniski, 2016; Kahu et al., 2017; Sansone & Thoman, 2005) and academic performance (Harackiewicz, Durik, Barron, Linnenbrink, & Tauer, 2008). In fact, students' interest is also one of the indicators in

affective engagement (Skinner et al., 2008, 2009) that it also promotes higher levels of behavioural and cognitive engagement (Kahu et al., 2015, 2017). Students' interest in their learning is expressed in their alertness, focused attention and engagement with a particular subject area (Ainley, 2006; Hidi & Renninger, 2006) and such interest is typically associated with the experience of positive emotions (Hensley et al., 2015; Richards et al., 2013). Researchers have generally reached a consensus over two main types of interest found in students - a situational interest which is transient and an individual interest which is more enduring (Ainley et al., 2002; Hidi & Renninger, 2006; Krapp, 2005).

Hidi and Renninger (2006) proposed a sequential development of interest, explaining how students progress from a situational interest to an individual interest as they interact with the subject content. Students develop a situational interest when they are stimulated by a new knowledge, usually involving positive emotions and a focused attention that they are likely to continue to deepen their interest if there are factors in the environment promoting their interest further. When students continue to explore the new knowledge they are exposed to and start to attach a personal value to that knowledge, they develop an individual interest, which is more stable over time, reflected by the continuous investment of time, effort and energy in their learning, i.e. engagement. Perhaps this trend of interest development explains why researchers are keen to investigate situational interest (Hui, Li, Qian, & Kwok, 2019; Kahu et al., 2017; Rotgans & Schmidt, 2011b, 2014; Tanaka & Murayama, 2014) as it seems to be the optimal phase where educators could facilitate students to develop and sustain their interest into the more enduring individual interest. Sometimes, the sequence of interest progression appears to be reversible that students' existing individual interest may precede their exposure to the subject content, thereby strengthening their situational interest in a particular area (Kahu et al., 2015, 2017). This reversible

sequence is particularly true to higher education students who are likely to have developed some degrees of interest before choosing their disciplines of study. Recent studies in higher education investigating the role of interest on students' academic engagement revealed that situational interest was triggered by such factors as students' existing interest in the subject matter and enthusiastic and knowledgeable lecturers who delivered quality teaching (Hui et al., 2019; Kahu et al., 2015, 2017; Quinlan, 2019; Rotgans & Schmidt, 2011b, 2014; Tanaka & Murayama, 2014). Kahu and colleagues (2015, 2017) revealed that students who perceived the academic tasks as relevant tend to develop a stronger interest in the subject matter, which further enhanced their academic engagement. Their interest was also strengthened by a higher level of self-efficacy, enjoyment in learning, support from lecturers and a sense of belonging to the learning environment. These findings asserted the influence of interest on students' academic engagement is evident that various affective elements of self-efficacy (i.e. PsyCap), enjoyment (i.e. positive emotions), interest, students' interactions with lecturers are mutually promoting each other and collectively enhance students' academic engagement.

3.5 Students' interactions with lecturers and peers

In the previous sections, the affective elements of PsyCap, emotional experiences and interest of students have addressed and explained how the individual students interact with their learning contexts, this coming section extends those interactions to involve students' encounters with lecturers and peers. Indeed, the combination of all these affective elements reflects the reality of an academic context, where students' academic engagement is influenced by an array of contextual factors.

3.5.1 Students' interactions with lecturers

Studies showed that lecturers played an important role in promoting students' academic engagement (Bryson & Hand, 2007; Farr-Wharton et al., 2018; Halm, 2015;

Lundberg & Schreiner, 2004; Umbach & Wawrzynski, 2005; Zepke & Leach, 2010; Zepke et al., 2010b), academic performance (Anaya & Cole, 2001; Farr-Wharton et al., 2018), motivation (Rugutt & Chemosit, 2009; Zepke & Leach, 2010) and the use of deep learning approaches (Trigwell, 2005). Despite its positive influence on positive educational outcomes, lecturer-student interactions in higher education are under-examined (Farr-Wharton et al., 2018; Hagenauer & Volet, 2014; Schutz, Hong, Cross, & Osbon, 2006) and little is known about the processes underpinning the link between lecturer-student interactions and those outcomes (Kuh & Hu, 2001). For instance, we lack in-depth understanding of how those lecturer-students interactions are perceived by students and lecturers (Hagenauer & Volet, 2014), who initiated those interactions and how have they influenced academic engagement of university students.

Nevertheless, there are burgeoning studies investigating academic interactions with lecturers from students' perspectives, with findings revealing attributes of the lecturers and their academic support have contributed to fostering academic engagement. First, lecturers' attributes played an important role in enhancing students' academic engagement. Students reported themselves as more engaged if their lecturers were enthusiastic, respectful, approachable, caring and encouraging in responding to students' learning needs (Beard et al., 2014; Dirkx, 2001; Mearns, Meyer, & Bharadwaj, 2007; Zepke et al., 2010b). The enthusiasm exhibited by the lecturers is perceived by students as two-fold, on one hand, it involves their enthusiasm towards the subject matter and interactions with the students (Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009). At the same time, it also involves lecturers' capacity to stimulate students' interest in the subject matter (Moore & Kuol, 2007b; Quinlan, 2019).

Secondly, lecturers' attributes were found to strengthen their bonding with students (Hagenauer & Volet, 2014), which then facilitated a supportive learning environment. Students were more engaged in study when they perceived their lecturers as willing to

offer academic support, such as giving clear expectations, setting high standards, providing experiences of deep learning, delivering quality teaching, getting well-prepared for lectures, giving timely feedback, and making themselves available to students for discussion (Bryson & Hand, 2007; Devlin & O'Shea, 2012; Kuh et al., 2006; Mearns et al., 2007; Zepke et al., 2010). Indeed, students reported their increased motivation to invest their effort in study if they have established a bonding with their lecturers, as they wish to please their lecturers (Cotten & Wilson, 2006). They also reported having better academic competence, resulting from more frequent interactions with their lecturers, particularly in the first year of their study (Reason, Terenzini, & Domingo, 2006).

Recognising the importance of such bonding between lecturers and students, researchers have advocated lecturers to "invite emotions" into the learning environments and to recognise their important role to develop effective learning practices (Shechtman & Leichtentritt, 2004). For instance, emotions in students influenced the way they received feedback from lecturers (Värlander, 2008) that encouraging lecturers who give feedback to students in a non-authoritative manner can promote students' engagement in further discussion during which they can construct meaning from the feedback received (Juwah et al., 2004).

Another finding has revealed the context-specific expectations of students towards their interactions with lecturers, which showed varied patterns across disciplines of study (Sander, Stevenson, King, & Coates, 2000). For instance, psychology students placed more emphasis on interacting with lecturers in their study than business students (Sander et al., 2000). Studies also showed the use of different teaching approaches across disciplines with social science lecturers tended to adopt a more student-centred approach than their colleagues in business and science, where a more teacher-focused approach was identified (Evans et al., 2015; Lindblom-Ylänne,

Trigwell, Nevgi, & Paul, 2006; Párpala, Lindblom-Ylänne, Komulainen, Litmanen, & Hirsto, 2010). These findings suggested that the different teaching approaches may influence students' expectations toward their interactions with lectures, thus further investigation is need to understand how academic engagement is represented in students from specific disciplines of study.

To sum up, students have the autonomy to decide whether to engage in their academic work, while lecturers play an important role in promoting such engagement, facilitated by their personal attributes, bonding with students and academic support offered (Beard et al., 2014; Bryson & Hand, 2007; Kuh et al., 2006; Zepke et al., 2010). The contextual-specific nature of lecturer-student interactions also suggests that there is no one-size-fits-all interpretation of how those interactions influence engagement in students and it may vary across disciplines of study. Thus, we need more in-depth investigation of the lecturer-student academic interactions to understand its association with student learning in greater detail.

3.5.2 Peer interactions

In addition to learning from their knowledgeable lecturers, students also reported benefitting from their interactions with peers, which were positively linked with academic engagement (Krause & Coates, 2008; Kuh et al., 2006; Lizzio & Wilson, 2006; Moran & Gonyea, 2003). University students appreciated small group academic discussions with their peers during which they have built confidence through articulating their views to others (Naude et al., 2014) and deepened their understanding on the subject matter from the different perspectives from their peers (Värlander, 2008; Zher, Hussein, & Saat, 2016). These benefits were concurred by Higgins, Hartley and Skelton (2001), who argued that peer discussions are motivating to students, whom regarded their peers as having similar difficulties and struggles in academic work, so that it is easier for students to accept critiques from peers than from

lecturers (Juwah et al., 2004; Naude et al., 2014; Zhang & Bayley, 2019). In line with the above findings, Krause and Coates (2008) also argued that peer interactions allow students to build their knowledge in a conversational context, which sometimes can be extended beyond classrooms, usually among students who adopted a deep approach to learning as they articulated their ideas to their peers.

Another strand of peer interactions is concerned with the quality of friendship and support between students and their peers, which were positively linked with students' positive emotions and their sense of belonging to the institutions (Linnenbrink-Garcia, Rogat, & Koskey, 2011; Picton, Kahu, & Nelson, 2017), i.e. affective engagement. Students reported that they benefitted from reciprocal help from each other (Naude et al., 2014) to build up their academic resilience as they learned from peers who managed to overcome adversities in study (Johnson, Taasoobshirazi, Kestler, & Cordova, 2015).

Despite the benefits of peer interactions discussed, a study on group work revealed that some high-achieving students reported a priority in achieving individual academic performance over the team achievements in group projects (Lee, Kim, & Byun, 2015). The study also revealed that these high-achievers perceived themselves as contributing more than their fellows, such as taking more initiative and getting well-prepared for the group meetings. These students also perceived themselves as being able to produce higher quality work than their peers as they reported polishing the final work alone to meet their preferred standards and thus better academic achievement, instead of collaborating with group members. This finding suggests the varying perceptions and expectations from students with different characteristics towards the benefits of peer work, particularly for those who aim for outstanding academic performance. It is also possible that students respond to in-class group discussion and group projects differently as the latter involves assessment and affect

their academic performance. We need more in-depth investigation to understand how different forms of peer interactions influence students' academic engagement in higher education.

3.6 Summary of the affective elements and research needs

To sum up, the affective elements of PsyCap, emotional experiences, students' interest in learning and their interactions with lecturers and peers discussed in Sections 3.2 to 3.5 have each contributed to academic engagement of students when they are investigated individually in prior studies. In the present study, they are examined holistically as part of the integrative framework of affective dimension learning to address the research needs I am about to discuss in the coming section. In doing so, I have formulated a conceptual framework for the present study (see Figure 3.5), combining the processes of academic engagement (Figure 2.5 in Chapter 2) and the integrated framework encapsulating the affective dimension of learning.

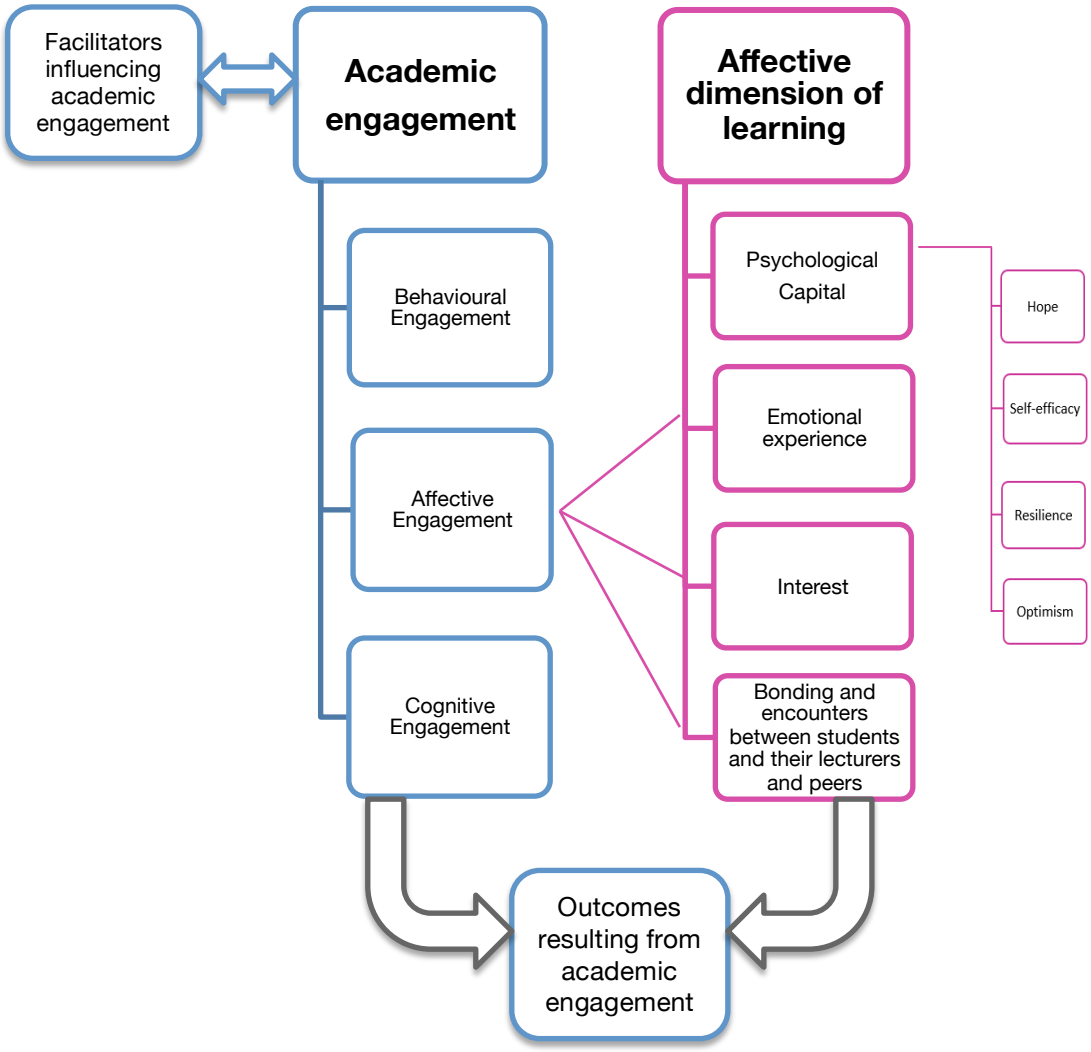


Figure 3.5. A conceptual framework capturing the process of academic engagement and its connection with the affective dimension of learning.

3.6.1 The affective dimension of learning as under-examined

Most studies on the affective aspect of learning were focused on examining the influence of individual affective elements on students' academic engagement (Ainley, 2012; Askham, 2008; Fredricks et al., 2004; Linnakylä & Malin, 2008; Pekrun et al., 2002) instead of a examining their concerted influence as a holistic dimension. Limited studies investigating affective engagement found that it mediated lecturer-student

interactions, which in turn promoted academic performance in university students (Sagayadevan & Jeyaraj, 2012). The need to examine the affective elements as a holistic dimension is also supported by researchers who argued for a upward spiral effect between positive resources (Hobfoll, 2002; Llorens et al., 2007) to exert influence on students' educational outcomes. They suggested that students have a tendency to expand their resources based on the existing ones, like how PsyCap components are promoting each other (see Section 3.2.4.2) and how it fostered positive emotions, thus academic engagement (discussed in Section 3.1.3) the previous paragraph. Thus, it is likely that when the affective elements are being investigated together, they would have a greater concerted influence on academic engagement.

3.6.2 Addressing the complexity of academic engagement and PsyCap

Second, despite a positive relationship identified between PsyCap and students' academic engagement (Fati et al., 2019; Luthans et al., 2016, 2019, Martínez et al., 2019; Siu et al., 2014), little is known about the underlying processes influencing the two constructs, such as how do students perceive the role of their PsyCap in their engagement in study and how have they developed those psychological resources. Studies of academic engagement and PsyCap are heavily skewed towards quantitative studies focusing on measuring their indicators (Fati et al., 2019; Fredricks et al., 2004; Fredricks, Flisecker et al., 2016; Luthans et al., 2012, 2016; Martínez et al., 2019; Siu et al., 2014), which contribute to identify the patterns of relationship between the two constructs. The positive link between the academic engagement and PsyCap suggests that enhancing either one is likely to promote another, however, these results are not sufficient to unpack the complex processes concerning how did students get engaged, how has PsyCap influenced students' academic engagement and what contextual factors can possibly influence academic engagement and PsyCap. To address the complexity of the two malleable constructs, it is necessary to expand the investigation

to examine not only their indicators, but also the processes involving students' experience and perception of their academic engagement and PsyCap as they interacted with the academic context. There are emerging qualitative studies on academic engagement, which revealed such contextual factors as the role of lecturers and the interest of students in learning as important in promoting academic engagement (Halm, 2015; Kahu & Nelson, 2018). However, similar studies in PsyCap are still very limited, given that PsyCap is a relatively new concept. Researchers have recognised the need and advocated further investigation to understand the facilitators of PsyCap (Newman et al., 2014) and the underlying processes explaining the interactions between PsyCap with other academic outcomes, such as academic engagement. To address the complexity of academic engagement, a contextual framework (see Section 2.4) is adopted in conjunction with the tripartite model (see Section 2.3) in the present study to investigate indicators, facilitators and the underlying processes influencing academic engagement. As for PsyCap, it is investigated based on the established framework consisting of hope, self-efficacy, academic resilience and optimism, to investigate how they are influenced by contextual factors.

3.7 Chapter summary

In this chapter, I introduced the formulation of an integrative framework of affective dimension of learning to investigate the combined influence of multiple affective elements on students' academic engagement. I delineated the relationship between affective engagement and the affective dimension of learning that the former is incorporated as part of the integrative framework. This differentiation explained the inter-relationships between academic engagement, PsyCap and the affective dimension of learning, i.e. the three key concepts investigated in the present study. Next, I discussed studies showing the inter-relationship between the three key

concepts in which they were found to promote academic engagement and academic performance of students collectively, justifying the need to investigate their concerted influence on student learning. After that, I introduce components in the integrated framework and present their role in influencing academic engagement and draw a close to the chapter by discuss the research needs identified from the review of the literature.

To conclude, studies in the existing literature provides a rich reservoir of valuable resources and insights to guide the present investigation focusing on academic engagement, PsyCap and the affective dimension of learning in higher education students in Hong Kong. Using the conceptual framework (see Figure 3.5), the present study aims to investigate the experiences of academic engagement and of higher education students in Hong Kong and the role of the affective dimension of learning in their study. A mixed methods approach is adopted and I will discuss it in the next chapter of methodology.

Chapter 4

Methodology and Research Design

4.1 Chapter overview

In this chapter, I present and justify the chosen methodology and research design adopted in the present study, which is a mixed methods study with a sequential design consisting of two phases of survey and interview. I will begin the chapter with a definition of the mixed methods approach, followed by the rationale for adopting it in the present study. Next, I will discuss the compatibility of both approaches and their complementary strengths to address the research purposes and answer the research questions in a single study. After that, I will illustrate the research design and identify the limitations associated with the use of a mixed methodology in the present study. Then, I discuss how those limitations can be addressed as I practised my reflexivity as a researcher as well as adopting the validation criteria in order to enhance the rigour of the present study. Subsequently, I will continue to discuss the mixed methods research design consisting of the development of the survey and the interviews. In addition, I address how I have taken care of the ethical concerns and procedures before I move on to present the data collection procedures. Before drawing to a close of the chapter, I will give a summary of the data collected from the survey and interviews as well as the respective methods of analysis.

4.2 A mixed methods approach in the present study

A mixed methods approach involves using a combination of elements from quantitative and qualitative approaches in a single study, with the aim of providing a more complex understanding of the research problems than adopting either approach alone (Creswell, 2014; Morgan, 2018; Teddlie & Tashakkori, 2012). The integration of quantitative and qualitative approaches can happen in various phases during the inquiry process, such as when formulating the research questions, research design,

methods of data collection and analyses (Creswell & Plano Clark, 2011; Creswell & Tashakkori, 2007; Johnson, Onwuegbuzie, & Turner, 2007; Morgan, 2007, 2014; Shannon-Baker, 2016; Tashakkori & Teddlie, 2010). Quantitative approaches are usually associated with the use of structured methods, such as surveys, to collect numerical data from large-scale samples of participants, so as to investigate the relationships between variables to understand the social phenomena. On the other hand, qualitative approaches involve the generation of data by adopting less structured methods like semi-structured interviews, to elicit rich descriptions from respondents relating to their lived experiences in the social contexts where they are situated in (Creswell, Klassen, Plano, & Smith, 2011; Hammersley, 2013). In view of the described features of the two approaches, quantitative approaches are often adopted to address research questions which aims to examine patterns or trends of relationships in the research problem, whereas qualitative approaches are often employed when the research questions involve exploration of individual experiences and reasons or factors contributing to those experiences (Fetters, Curry, & Creswell, 2013).

Researchers advocating mixed methods approach focus on utilising the strengths of both approaches to address the research purposes and they argued against a dichotomy between quantitative and qualitative approaches (Fetters, Curry, & Creswell, 2013) and asserted that they are not exclusive of each other. Instead, they argued that quantitative and qualitative approaches are rested on a continuum (Cooper, Glaesser, Gomm, & Hammersley, 2012; Gorard & Taylor, 2004; Ridenour & Newman, 2008; Teddlie & Tashakkori, 2012), with mixed method studies situating in the middle to incorporate features of both approaches in various stages of the research processes (Teddlie & Tashakkori, 2012), depending on the research purposes of the study.

4.2.1 Rationale for adopting a mixed methods approach

I subscribe to the view of Teddlie and Tashakkori (2012) that "phenomena are complex to the extent that single method approaches might result in partial, selective and incomplete understanding" (p.175) of the research problem. To reach a fuller understanding of the research problems, we need multiple perspectives to investigate the complex issues in the social world (Cohen, Manion, & Morrison, 2018). Adopting a mixed method approach in the present study emphasises the compatibility of the quantitative and qualitative strands and how they could complement each other to address particular research questions and offer a fuller understanding of the phenomenon in question (Fetters, 2018; Greene, 2008; Plano Clark & Ivankova, 2016). In the present study, my choice of adopting a mixed methods approach over a single method approach is driven by the need to fulfill the research purposes and to answer the respective research questions (Johnson & Onwuegbuzie, 2004; Johnson et al., 2007). Three research questions are formulated to address the following purposes of the present investigation. First, this present study aims to examine the relationship between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong. The second purpose is to explore students' experiences and perception of their academic engagement, while the third purpose of the present study is to investigate the role of the affective dimension of learning in students' engagement experiences. The three purposes are addressed by the following three research questions respectively.

Research questions

Research Question 1 (RQ1):

What is the relationship between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong?

Research Question 2 (RQ2):

How do higher education students in Hong Kong experience and perceive their academic engagement?

Research Question 3 (RQ3):

How do higher education students in Hong Kong experience and perceive the affective dimension of learning in their academic engagement?

RQ1 is addressed by adopting quantitative methods, i.e. the use of survey in the present study, which enables the collection of numerical data from a large-scale sample like that in the present study (N=270) in order to identify the pattern of relationships between the two phenomena of academic engagement and use of Psychological Capital of higher education students in Hong Kong. However, using the survey alone was not sufficient to provide answers to the process of how students experienced their engagement in study, such as what do students perceive as engagement and they perceive their engagement is being influenced by contextual factors. Similarly, students' experiences and perceptions involving the affective dimension of learning (e.g. study-related emotional experiences and students' interest in learning) cannot be addressed fully by the use of standardised items in the survey experiences happen (e.g. factors influencing engagement). Therefore, the complex processes and underlying mechanisms between students' academic engagement, the affective dimension of learning and the contextual factors have to be addressed by qualitative methods, i.e. the use of semi-structured interviews in the present study,

addressing RQ2 and RQ3. Therefore, a mixed methods approach is essential to be taken in the present study to incorporate the strengths of both quantitative and qualitative approaches in order to reach a fuller understanding of the research problems in question (Fetters et al., 2013; Johnson & Turner, 2003; Onwuegbuzie & Leech, 2005; Teddlie & Tashakkori, 2009). In addition, using a mixed methods approach fits the need of the present study to address both the confirmatory question (RQ1), i.e. "what" happened, and exploratory questions (RQs 2 & 3), i.e. "how" did the phenomenon happen, within one study (Teddlie & Tashakkori, 2009) with the use of the survey and the semi-structured interviews respectively.

4.2.2 Research design

A sequential design (Creswell & Plano Clark, 2011), consisting of two phases, was adopted in the present study (Figure 4.1). In the first phase, a survey was developed to gather numerical data from participants to address RQ1 to identify the relationships between the two phenomena of academic engagement and Psychological Capital of students. The second phase took its form in semi-structured interviews, which were conducted after the survey phase. The use of interviews allows the collection of textual data containing in-depth and rich descriptions of students' lived experiences, addressing RQ2 concerning the investigation of the process and experiences of students as they were engaged in their study, involving the representation of the affective dimension of learning (RQ3). Respondents for the semi-structured interviews were recruited from the participants who have completed the survey. I will present the particulars of the sampling and recruitment processes in the subsequent sections (see Sections 4.5.2 and 4.5.3).

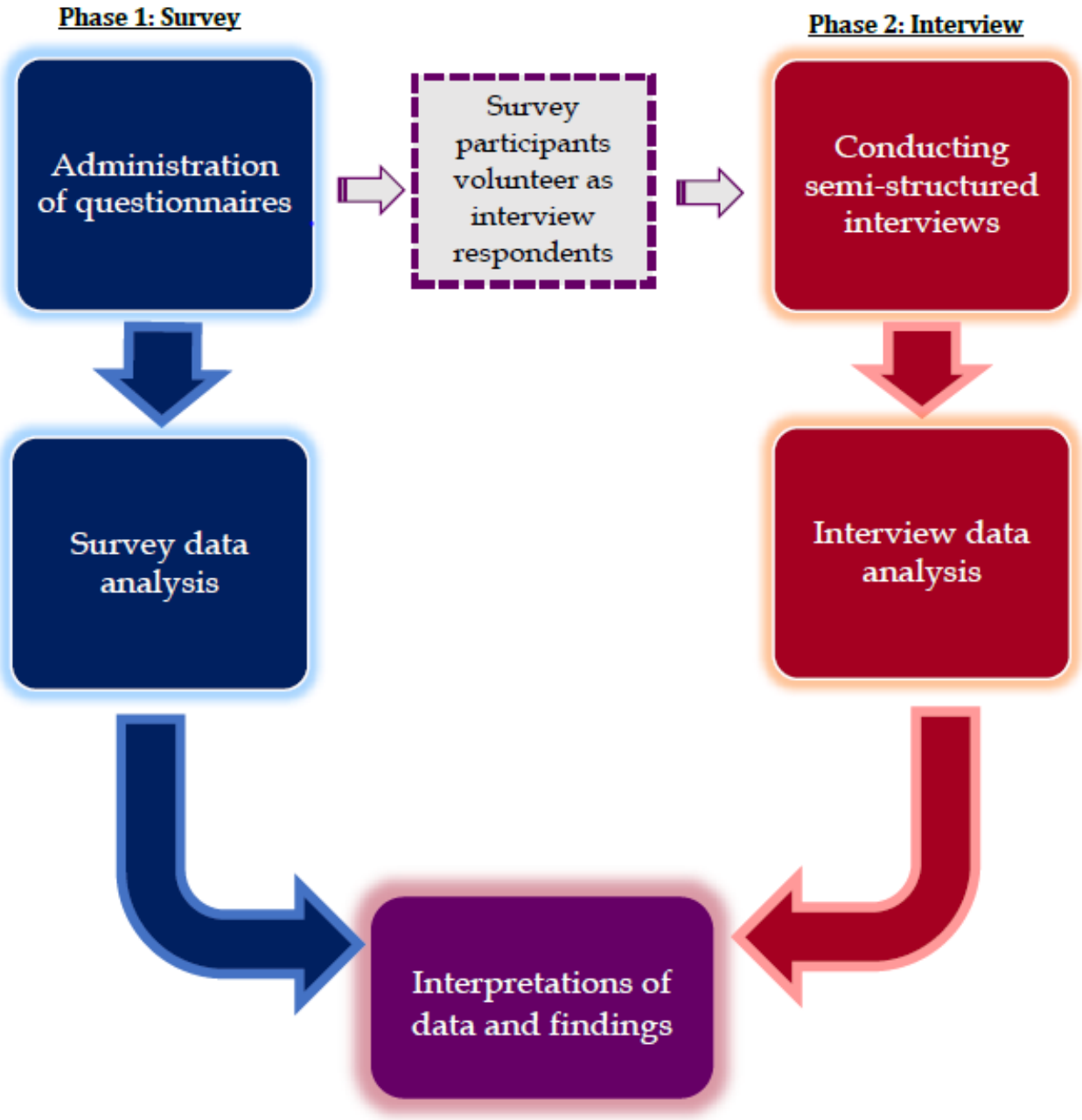


Figure 4.1. A sequential design and the procedure of the data collection.

4.2.3 Validation of the present study

In the present mixed methods study, I adopt the validation criteria from both quantitative and qualitative research to enhance the rigour of the findings of the survey and the semi-structured interviews.

4.2.3.1 Rigour of the survey

Among the features contributing to the rigour of quantitative research, issues of replicability, generalisability and the choice of instruments were taken into consideration in the present study, given that they are more relevant to the use of survey. First, replicability of a study refers to the extent to which the same or similar results would be obtained if the same study is conducted elsewhere (Hurst, 2008), e.g. in another population. A study is more likely to be replicable if the research processes are documented in sufficient details (Shadish, Cook, & Campbell, 2002; Peels, 2019), like how I documented and presented such research processes as the research design, data collection and data analysis when adopting the survey in the present study, to be discussed in Section 4.2.4 . Second, generalisability of a study refers to how far can its results be applied to another context or population to generate similar results as the original study, which is usually facilitated by data collected from a large-scale sample (Elman, Kapiszewski, & Lupia, 2018; Peels, 2019), such as the use of survey in the present study. Finally, the choice of instruments and development of the survey were also carefully administered to maintain the rigour of the present study. The instruments adopted in the present study was a result of a careful consideration as I adopted published scales with sound reliabilities - a Cronbach's alpha value over .70 was considered as acceptable (Cortina, 1993; Nunnally, 1994; Taber, 2018). Here, I present an overview of the adopted published scales and their reliabilities in Table 4.1, while details of the scales and the development of the survey are presented in Section

4.2.4. The first four scales were adopted to measure students' academic engagement, while the last scale was adopted to measure their PsyCap.

Table 4.1

Adopted scales and their reliabilities

Construct	Scale adopted	Reliability in previous studies	Reliability in the present study
Academic Engagement	ABC	.74 to .78	.73
	EvsD	.82 to .84	.86
	ETLQ	.73 to .77	.84
	MSLQ	.69 to .79	.84
PsyCap	A-PCQ	.90 to .93	.93

Note:

ABC: Academic Behavioural Confidence Scale
EvsD: Engagement vs. Disaffection with Learning Scale
ETLQ: Experience of Teaching and Learning Questionnaire
MSLQ: Motivated Strategies for Learning Questionnaire
A-PCQ: Academic Psychological Capital Questionnaire

The survey items were carefully developed with deliberate considerations to issues including selection and inclusion of items, set responses with standardised format, description of the adopted scales, accuracy of translation, clarity of meaning and all these details are discussed in Section 4.3.1. Before I conducted the main study, a pilot survey was carried out and revisions were made with reference to the feedback from participants who have completed the pilot survey (see Section 4.3.3).

4.2.3.2 Rigour of the semi-structured interviews

As for qualitative research, its validation is expressed in terms of its trustworthiness, concerning whether the findings are worthy of attention (Cortina, 1993; Nunnally, 1994; Taber, 2016) and it is further demonstrated through the four criteria of

credibility, transferability, dependability and confirmability. First, an inference is credible when respondents' perceptions are consistent with how researchers interpret them (Lincoln & Guba, 1985). Credibility of the inquiry can be enhanced by "prolonged engagement"(Mertens, 2015; Tobin & Begley, 2004) when researchers immersed in the site of inquiry sufficiently to establish rapport with the respondents and to understand the culture of the research context in order to filter the effects of any misinformation. My substantial years of working as a lecturer in Harmony University enables me, as the researcher, to get familiarised with the research context and to establish rapport with the respondents (Lincoln & Guba, 1985). Being an insider-researcher, I also get to know sufficient information about the research context and its culture, such as the characteristics of the students and the curriculum structure, and I will address my role as an insider-researcher later in Section 4.2.4.3. Second, I provided details of the research context as "thick descriptions" throughout the thesis whenever appropriate to address transferability, to facilitate readers to consider whether the findings are applicable to other similar settings (Mann, 2016). The next criteria of dependability was also met as I kept an audit trail of the research processes (Lincoln & Guba, 1985), such as the formulation of research questions, research design, development of the survey, audio-recordings of the interviews, transcription and the coding process of the interview data. An audit trail also contributes to meet the final criteria of confirmability concerning how clearly do researchers derive the interpretation of findings from the data, during which reflexivity plays a central role (to be discussed in Section 4.2.4) that I have kept a reflexive journal in the inquiry process to keep track of my documentation and thoughts about the research process and to justify the decisions made.

To sum up, the validation criteria suggested by both the quantitative and qualitative strands were adopted in the present mixed method study to enhance the rigour of the findings.

4.2.4 Reflexivity as a researcher in terms of my positionality

The limitations of using a mixed methodology in the present study are primarily related to my concurrent roles as a researcher and a lecturer in Harmony University where the data collection took place and I will discuss how I practised reflexivity as a researcher to address those limitations. I acknowledged that it is not possible for me, as the researcher, to be value-free in the investigation process (Creswell & Plano Clark, 2011), thus, it is important to examine how my personal background and experiences may potentially influence the research process (Hammersley, 2013). Reflexivity in research is an active and ongoing process concerning every stage in the research (Cohen et al., 2018; Gabriel, 2015; Jootun, McGhee, & Marland, 2009; Lynch, 2000; Primeau, 2003) and I will address issues relating to the roles I have taken in the present inquiry, namely my existing knowledge, the power relations with the participants associated with my role as a lecturer and the insider perspective.

Positionality refers to the position researchers have chosen to adopt within a study (Guillemin & Gillam, 2004), involving how their biography, such as interest, values, assumptions and their relations with respondents and the research problem, could possibly shape the research process (Savin-Baden & Major, 2013). To help myself to be reflexive in the inquiry process, I have identified my positionality in the present study and discussed its potential influence on the research process (Berger, 2015; Dowling, 2006; Macbeth, 2001), explicating my relations with the research problem, participants, the research context and the research process.

4.2.4.1 Existing knowledge of the research problem and research context

The first issue relating to my positionality is my existing knowledge about the research problem, such as my theoretical assumptions about student learning experiences relating to their academic engagement and this could potentially impact the research process (Berger, 2015), such as how I look for patterns of experiences to answer my research questions and this will be addressed later in this section. I practised "bracketing" (Berger, 2015) to put aside my assumptions and reminded myself not to prejudge on responses from respondents in order to remain open to the data as they revealed. For instance, when conducting the semi-structured interviews, I maintained my curiosity and openness with a "not knowing" attitude to probe questions from respondents to elicit in-depth responses and to clarify their responses, so as to avoid "filling the gap" with my assumptions and prior understanding of the characteristics of the respondents and the research context where I worked. To mitigate my personal bias in interpreting respondents' recollections, they were invited to reflect on the factors they perceived as contributing to their engagement or discouraging them from engaging in their study, see Appendix F for the full interview guide.

Despite the possible influence of having prior knowledge on the research inquiry, Streubert and Carpenter (2007) argued that researchers' relevant knowledge of the research problem and familiarity with the research context can be considered as advantageous to the inquiry. My knowledge and familiarity of the research problem and the research context facilitated me as the researcher to probe more efficiently to elicit in-depth responses from respondents, to understand the data quicker and to interpret their responses in a nuanced way (Berger, 2015). Indeed, my role as a staff member in Harmony University provided me access to some information and resources which were not always available for a researcher without connection with the University (Berger, 2015), such as the knowledge about the curriculum, the

teaching and learning environment of the institution as well as the landscape of higher education sector in Hong Kong. Garton and Copland (2010) also argued that researchers do not commence the research "with a clean sheet" (p.88), but using conceptual tools derived from sources like existing theories, researchers' beliefs and knowledge about a context, to formulate the research design and the inquiry process. Thus, having some prior knowledge of the research topic and my familiarity of the research context in Harmony University could bring benefits to the present inquiry, given that I was constantly aware to avoid projecting my beliefs and experiences to interpret respondents' experiences (Berger, 2015). To remain curious and open-minded when interpreting respondents' responses, I used an eclectic approach as I referred to the "a priori" codes derived from my conceptual frameworks, while looking for new codes emerging from the data, see Section 4.5.5.2 for detail where I discuss the coding process. Furthermore, I have kept a research journal to document the decisions made and my thoughts in the coding process to help myself to be reflexive throughout the inquiry process (Guillemin & Gillam, 2004).

4.2.4.2 Power relations with respondents

The second issue related to my positionality involves the power relations between me as a lecturer and the student respondents in Harmony University, which may potentially affect the research process (Guillemin & Gillam, 2004), such as respondents may tend to speak favourably about their engagement experiences. Haynes (2006) referred such power asymmetry between the interviewer and the interviewees as common that the interviewer normally has the competence and the right to pose questions and set the agenda for the inquiry process. However, Hoffmann (2007) argued that power asymmetry is fluid rather than static, for such power might shift back and forth at some point where the interviewees hold the power to decide what responses and how much depth they would share to the interviewer. To address the

potential influence associated with power asymmetry, during the data collection, I have explicitly disclosed myself to the respondents as a researcher who was interested to understand the learning experiences of higher education students in Hong Kong and that the research findings would contribute to my doctoral thesis. Before the interviews, I explained to each respondent that there were neither right or wrong nor good or bad responses, but simply recollections of their learning experiences in Harmony University. Respondents were assured of their autonomy to share their responses and perceptions of their learning experiences, without the need to fulfil the expectations of a staff member from the University. Furthermore, respondents were asked to recall experiences when they felt they were engaged as well as those when they considered themselves as disengaged from their study, hoping to balance the potential tendency for respondents to skew towards reporting only the positive experiences relating to their academic engagement. Some of the core questions are listed in Section 4.4.2 as I discuss the use of an interview guide and its full version is attached as Appendix F.

4.2.4.3 Insider perspective

Finally, I take note of the potential influence of my insider perspective of being a staff member of Harmony University that I was familiar with the academic life of respondents, such as the teaching and learning atmosphere, the programme requirements and the general characteristics of the respondents. Being an insider-researcher can bring some advantages to the research process, such as being able to ask more meaningful questions due to my prior knowledge of the research problem and research context, so that I felt confident about "what to ask and how to ask" (Berger, 2015, p. 223). Also, my role as a lecturer somehow made it easier and more natural for me to build the rapport and trust with the respondents, resulting from our shared environment in the research context (Jootun et al., 2009) and this could facilitate the

interview process as I was able to hear the unsaid and interpret the meaning that might not be obvious to an outsider (Jootun et al., 2009). At the same time, I also take note that such prior knowledge may diminish my curiosity towards the responses given and I reminded myself to "bracket" my knowledge and beliefs during the inquiry process (discussed earlier) to stay curious and open-minded about the data collected.

To sum up, I recognise that it is not possible to remove all the potential influences associated with my personal background and assumptions on the research process despite my attempts and cautions taken to address the issues discussed. Instead, I have acknowledged those influences and devoted to be reflexive in the investigation process, hoping to minimise the influences in relation to my background when I analysed and made inferences on the interview data.

4.3 The survey approach

A survey is used to enable the collection of descriptive and numerical data in order to identify the trends and patterns of relationships about responses from participants in the present study (De Vaus, 2013), addressing the first research question. The use of a survey enables collection of quantitative data from large samples (i.e. 270 participants in the present study) and it facilitates the replicability and generalisation of study (discussed in Section 4.2.3), contributing to the rigour of findings in the present study. I developed a self-reported survey as a tool to collect numerical data from participants to address RQ1, aiming to identify the relationship between academic engagement and PsyCap.

4.3.1 Development of the survey

The survey consisted of three sections and it was focused on items asking academic engagement, PsyCap and demographic information of participants respectively. An informed consent form was attached on the first page of the survey to introduce the

purpose of the research and to explain issues of voluntary participation, the right to withdraw, confidentiality and anonymity as well as data protection. I also made use of the survey to recruit respondents for the semi-structured interviews by inviting participants to provide contact information if they were willing to take part in a later interview.

The first two sections contained instruments adapted from education studies in Western literature and I will present them later in the chapter with justifications for inclusion. To better fit the higher education context in Hong Kong, I translated all items in the instruments from English into Chinese to facilitate participants' understanding. Some items were rephrased to fit in the context of Harmony University, for example, the use of "teachers" was replaced by "lecturers", whereas the use of "tutorials" was replaced by "lectures" as the educational encounters took place mainly in lectures in Harmony University. To ensure the translated items carry the same meaning as the original ones, a back-translation (Brislin, 1970) from Chinese to English was completed by an experienced English lecturer who was proficient in both the English and Chinese languages. After that, a native English speaker compared the back-translated English version with the original English version to check for discrepancies. The translator and the native speaker were reminded to focus on the meaning of the survey items instead of the word-to-word translation. Based on the discrepancies spotted between the original English version and the back-translated English version, I made further modifications on the survey items and finalised the Chinese version as the instrument for the data collection in the survey.

In the last section of the survey, demographic information (e.g. age, gender, year of study, programme of study) of participants was collected. Apart from using the conventional printed survey, I also designed an online survey with identical content, to enhance the response rate by using multiple and mixed modes of delivery and

administration (O'Muircheartaigh, 2018; Sue & Ritter, 2012). The administration and implementation of the survey are discussed in Section 4.5.2, including illustration of some sample survey items.

In Figure 4.2, I present the layout of the second part of the survey focusing on items on the scale of cognitive engagement as an example. The English version is presented here to facilitate understanding, while the actual survey was translated into Chinese in the data collection process to fit the Hong Kong context. A 5-point Likert scale was adopted for all survey items and all participants were asked to reflect on their learning experiences by selecting their responses in each item from a range of 1 to 5 (*1 = "strongly disagree"; 5 = "strongly agree").* The full survey is attached as Appendix D (English version for reference) and Appendix E (The Chinese version used in the data collection) respectively.

Part 2

Read the following statements about your learning experience in your **major programme,** please circle the answer from 1 to 5, which best describes you.

1	*2*	*3*	*4*	*5*
Strongly disagree	.....			***Strongly Agree***

1.	I've often had trouble making sense of the things I have to remember.	1	2	3	4	5
2.	I've been over the work I've done to check my reasoning and see that it makes sense.	1	2	3	4	5
3.	I have generally put a lot of effort into my studying.	1	2	3	4	5
4.	Much of what I've learned seems no more than lots of unrelated bits and pieces in my mind.	1	2	3	4	5
5.	In making sense of new ideas, I have often related them to practical or real life contexts.	1	2	3	4	5
6.	On the whole, I've been quite systematic and organized in my studying.	1	2	3	4	5
7.	Ideas I've come across in my academic reading often set me off on long chains of thought.	1	2	3	4	5
8.	I've looked at evidence carefully to reach my own conclusion about what I'm studying.。	1	2	3	4	5
9.	When I've been communicating ideas, I've thought over how well I've got my points across.	1	2	3	4	5
10.	I've organised my study time carefully to make the best use of it.	1	2	3	4	5
11.	It has been important for me to follow the argument to see the reasons behind things.	1	2	3	4	5
12.	I've tended to take what we've been taught at face value without questioning it much.	1	2	3	4	5
13.	I've tried to find better ways of tracking down relevant information in a subject.	1	2	3	4	5
14.	Concentration has not usually been a problem for me, unless I've been really tired.	1	2	3	4	5
15.	In reading for a course unit, I've tried to find out for myself exactly what the author means.	1	2	3	4	5
16.	I've just been going through the motions of studying without seeing where I'm going.	1	2	3	4	5

Figure 4.2. An example of a section in the self-reported survey measuring cognitive engagement.

4.3.2 The Instruments

Published scales were adopted to measure the three dimensions of academic engagement and Psychological Capital, including "Academic Behavioural Confidence" Scale (Sander & Sanders, 2009), "Engagement vs. Disaffection with Learning" (Skinner et al., 2008) "Experience of Teaching and Learning Questionnaire" (Entwistle & McCune, 2004), "Motivated Strategies for Learning Questionnaire" (Pintrich, Smith, Garcia, & McKeachie, 1991) as well as "Academic Psychological Capital Questionnaire" (Luthans et al., 2012). I will elaborate the use of all these scales in the subsequent sections with sample items.

4.3.2.1 Academic engagement

The multiple dimensions of academic engagement was measured by using scales adopted from existing inventories, representing the dimensions of behavioural, affective and cognitive engagement respectively.

(a) Behavioural Engagement.

Behavioural engagement refers to the actions and practices students displayed in their learning, such as students' attendance and participation in academic tasks. It is measured by adopting the **"Academic Behavioural Confidence" Scale** (ABC, Sander & Sanders, 2003, 2009), consisting of 17 items and 4 sub-scales (listed below), with a Cronbach's alpha of .88 (Sander & Sanders, 2003).

Four sub-scales of the ABC Scale

- "Verbalising" – focusing on expression of ideas
- "Attendance" – focusing on students' attendance in lectures
- "Grades" – focusing on academic achievement
- "Studying" – focusing on self-regulation

Items from the sub-scales of "Verbalising" and "Attendance" were selected and adopted in the present study as they described students' articulation of ideas to peers

and lecturers and their lecture attendance, which resembled the educational encounters of students in higher education (Schnitzler, Holzberger, & Seidel 2020). Sample items of the adopted sub-scales included *"I can engage in profitable academic debate with my peers" (Verbalising) and "I can attend most lectures"* (Attendance). The other two sub-scales of "Grade" (academic achievement) and "Studying" (self-regulation) were not included in the present study, considering that academic achievement was not the focus of present investigation while features of self-regulation overlap with the cognitive dimension of engagement, which is presented later in this chapter. The two selected sub-scales of Verbalising and Attendance showed Cronbach's alpha values of .78 and .74 respectively among UK university students (Sander & Sanders, 2009) and alpha values ranging from .74 to .81 in university students cross other cultures (De la Fuente, Sander, & Putwain, 2013; Sander, De la Fuente, Stevenson, & Jones, 2011). The sound reliabilities shown in the two sub-scales of "Verbalising" and "Attendance" across different cultures revealed their robustness to reflect students' responses to behavioural engagement in the present study.

***(b) Affective Engagement*.**

Affective engagement in the present study focuses on the positive affective reactions experienced by students in their study by using an adaptation of **"Engagement vs. Disaffection with Learning (EvsD) scale** (Skinner et al., 2008, 2009). The original EvsD scale consisted of 20 items measuring both dimensions of behavioural and affective engagement. Items from the "Emotional Engagement" sub-scale measuring positive emotional reactions of students reported in their learning were chosen, as they were aligned with the conceptualisation of the affective engagement in the present study (discussed in Section 2.3.2). The Cronbach's alphas of the adopted items covered a range from .82 to .84 from previous studies (Skinner et al., 2008, 2009) and .84 from a

later study conducted in Hong Kong (Law, King, Notari, Cheng, & Chu, 2014), the same cultural context as the present study, supporting its suitability to be used in the present study. Three items were directly adopted from the 5-item Emotional Engagement sub-scale, with a sample item showing "I feel excited when I am learning new things". Another three items were created to represent students' positive emotional experiences related to the interactive learning and academic discussions with their lecturers and peers, more relevant in the higher education context in Hong Kong. A sample item was *"I am happy when I am discussing topics with classmates"* (see Appendix A).

(c) Cognitive Engagement

Cognitive engagement refers to students' investment in learning, involving their use of learning strategies beyond classrooms, and it is reflected in two components of deep approach to learning and self-regulated learning.

Cognitive engagement – component 1: a deep approach to learning.

Students who adopt a deep approach to learning go beyond the basic requirements and expend more mental effort in their learning. They tend to make connections between ideas and concepts and are eager to achieve deeper understanding of the course materials. **The Approaches to Studying Inventory (ASI)** sub-scale from "Experience of Teaching and Learning Questionnaire" (ETLQ, Entwistle & McCune, 2004) was adopted to measure students' tendency to pursue in-depth understanding of the course materials. The 18-item ASI sub-scale reported Cronbach's alpha values ranging from .70 to .81 in British and Finnish university students (Parpala, Lindblom-Ylänne, Komulainen, & Entwistle, 2013) and a range from .64 to .77 in Chinese university students in Finland (Sakurai, Pyhältö, & Lindblom-Ylänne, 2014). The Chinese university students possibly share similar characteristics as the Hong Kong students in the present study in terms of their ethnicity, suggesting the suitability of

using ASI in the present study. A sample item was reflected as *"I've looked at evidence carefully to reach my own conclusion about what I'm studying."*

Cognitive engagement – component 2: self-regulated learning.

Self-regulated learning refers to students' use of strategies for planning, monitoring and modifying their cognition as a way to achieve their academic goals and it was measured by the "Motivated Strategies for Learning Questionnaire" (MSLQ, Pintrich et al., 1991). From the original 81-item MSLQ, the sub-scales of "Critical thinking" (5 items), "Metacognitive self-regulation" (12 items) and "Effort regulation" (4 items) were adopted in the present study as they closely reflected the features of self-regulated learning and reported sound Cronbach's alpha values of .80, .79 and .69 respectively (Pintrich et al., 1991). I present the sample items for each of the sub-scale adopted in the present study below.

- A sample item from "Critical thinking" – *"When a theory, interpretation, or conclusion is presented in class or in the readings, I will question them and see if there is a good supporting evidence".*
- A sample item from "Metacognitive self-regulation" – *"When I study for this class, I set goals for myself in order to direct my activities in each study period".*
- A sample item from "Effort regulation" – *"Even when the course materials are dull and uninteresting, which I don't like, I manage to keep working until I finish".*

4.3.2.2 Psychological Capital

Psychological Capital (PsyCap) is defined as an individual's positive psychological state consisting of hope, self-efficacy, academic resilience and optimism (Luthans, Youssef & Avolio, 2007). The **"Academic Psychological Capital Questionnaire"** (A-PCQ, Luthans et al., 2012) was derived from the "Psychological Capital Questionnaire" (PCQ, Luthans, Youssef, & Avolio, 2007) with minor modifications made in the use of words in the items to fit the education context. The Cronbach's alpha values of A-PCQ were reported in a range from .90 to .93 (Luthans et al., 2012;

Luthans et al., 2016) in university students in USA and .95 in Hong Kong university students (Siu et al., 2014). The sound reliabilities of the A-PCQ, particularly among Hong Kong universities students (alpha = .95) from the study conducted by Siu et al. (2014) suggested it is a suitable inventory to be adopted in the present study, involving participants similar to those of the present study. All 24 items in the A-PCQ were adopted in the present study and the sample items of each component are presented below:

- Hope - "*I can think of many ways to reach my current study goals.*"
- Self-efficacy - "*I feel confident analysing a difficult question to find a solution concerning my schoolwork.*"
- Academic resilience - "*I usually manage difficulties one way or another in my study.*"
- Optimism - "*I always look on the bright of things regarding my study.*"

4.3.3 Pilot study

Before the main study, a pilot survey was conducted in Harmony University that it was implemented at the end of lectures with student participants enrolled in different disciplines of study. An inform consent form was attached on the first page of the survey to explain the issues of voluntary participation, the right to withdraw from the study as well as confidentiality and anonymity of the data, and I also explained verbally to the participants before distributing the survey. A total of 68 students participated and returned the completed survey from the 103 copies I have distributed, giving a response rate of 66%. Conducting the pilot study enabled me to gather feedback from participants on aspects such as the length of the survey, clarity of the survey items, instructions and layout as well as the duration required to complete the survey (Cohen et al., 2018). Such feedback was useful for me to make revisions on the survey items for the main study to enhance the rigour of the investigation. The pilot

survey consisted of 76 items (attached as Appendix B), which took participants approximately 15 to 20 minutes to complete. I have taken reference received from the feedback from the participants to make revisions on the length of the survey and clarity of the items. The first revision I made was merging items carrying similar meanings that 7 items were removed from the pilot survey, leaving 69 items for the finalised version of survey used in the main study. An example of revised survey items focusing on the dimension of cognitive engagement is presented in Figure 4.3 For the remainder of the survey, most of the modifications were made in the sub-scales of "Critical thinking", "Metacognitive self-regulation" and "Effort regulation" measuring cognitive engagement (See Appendix C).

Cognitive engagement – critical thinking	
Merged items	**The modified new item**
• I often find myself questioning things I hear or read in this course to decide if I find them convincing. • When a theory, interpretation conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.	When a theory, interpretation, or conclusion is presented in class or in the readings, I will question them and decide if there is good supporting evidence.

Figure 4.3. An example of revised survey items after the pilot survey.

The second revision I made was using a standardised 5-point Likert scale for the set responses throughout the survey (*5 = strongly agree; 1 = strongly disagree)*, replacing the Likert scales with mixed ratings (e.g. some using 7-point, while others used 6-point) from the various adopted scales. Such revision was made to facilitate participants' completion of the survey by building a habit of making responses with the same

rating, i.e. a 5-point Likert scale. To sum up, conducting the pilot study provided useful feedback for making relevant modifications to enhance the survey as a rigorous tool in the present investigation and it helped facilitate participants' understanding of the survey items and their responses.

4.4 Interview approach

Qualitative interviews facilitate people to articulate their implicit perceptions, feelings and understanding of their experiences and make them explicit (Cohen et al., 2018), and interviews also enable exploration of the relationships between different aspects of the phenomena. In the present study, semi-structured interviews were used to explore students' experiences of academic engagement in relation to the affective dimension of learning being addressing the second and third research questions.

4.4.1 Use of semi-structured interviews

I used semi-structured interviews to elicit responses from respondents concerning their experiences of academic engagement and to explore the representation of the affective dimension of learning in those encounters for further interpretation. I chose to use the semi-structured interviews in the inquiry for they facilitated me to ask the same main questions to all respondents, while allowing me to diverge slightly from the script (McIntosh & Morse, 2015; Morse, 2012). This flexibility enabled me to probe follow-up questions to elicit further responses for richer descriptions and clarifications from respondents (Kvale, 1996; McIntosh & Morse, 2015; Morse, 2012) whenever appropriate. This interview format also allows respondents to speak at length and depth as they develop their thoughts (Arksey & Knight, 1999; Kvale, 1996) when reflecting on their experiences.

4.4.2 Interview guide

I developed an interview guide containing main questions with specific topics planned in advance (Brinkmann & Kvale, 2015), drawing from the indicators of academic

engagement and PsyCap from the theoretical framework, while allowing flexibility to explore students' experiences (Arksey & Knight, 1999; Brinkmann & Kvale, 2015; Kvale, 1996). I designed the interview guide with open-ended questions and used it as the framework to conduct the interviews, with specific questions being arranged in a sequence to facilitate the flow of the interviews (Arksey & Knight, 1999; Magnusson & Marecek, 2015), while still allowing flexibility to probe further whenever appropriate and necessary.

The interview guide consisted of three parts and it began with demographic information, followed by some warm-up questions before moving on to the main questions of the investigation (Creswell, 2014). This format helped respondents feel relaxed and it facilitated the interviews to begin in a conversational tone (Arksey & Knight, 1999; Kvale, 1996). The first part concerning demographic information check was straightforward and it was done in the very beginning phase of the interviews, followed by the second part, during which I asked warm-up questions about student learning in general to facilitate respondents' recall of their experiences. For instance, respondents were asked to use three adjectives to describe their overall learning experiences in the University, which set the stage for the subsequent main questions of describing their moments of engagement in their study. In the third part, I asked respondents the main questions formulated with reference to the theoretical framework and the survey items. I designed the questions with simple wordings to facilitate respondents' understanding, e.g. I used the word "involved" to ask them to recall their experiences of engagement in study, as presented in the following example (Question 1), while the full interview guide is attached as Appendix F.

- **Question 1: Can you recall and describe a moment when you found yourself really *involved* in learning during your study?**

Using an interview guide for the inquiry provides a brief framework for conducting the interviews without sacrificing the flexibility of seeking respondents' experiences in greater depth. With the use of an interview guide, every respondent was asked the same main questions (Magnusson & Marecek, 2015), while I also made some flexible arrangement of the sequence and wordings of the questions whenever necessary and appropriate (Kvale, 1996; McIntosh & Morse, 2015; Morse, 2012). This flexibility was suitable for the present study considered that a good sequence of questions for one respondent did not always fit all other respondents. In fact, as the interviewer, I prompted and probed when I found it necessary to seek clarifications or further elaborations from respondents' responses. As mentioned, open-ended questions were used in the interview guide and they allowed respondents to define the situation in their own ways (Arksey & Knight, 1999; Cohen et al., 2018; Kvale, 1996), to share their stories in their own words and to express how they perceived those experiences (Silverman, 2011). Thus, using an interview guide with open-ended questions facilitates the data collection in a systematic way, while keeping certain degrees of flexibility, contributing to the elicitation of rich, detailed and complex responses from the respondents.

Using semi-structured interviews also serves to complement the survey data by adding respondents' lived experiences in greater detail. To facilitate the collection of rich data, interview questions were broken into small components to ask respondents to describe their experiences in detail, such as what did they do and how did they feel, they were also asked to give some specific examples to illustrate their experiences. Thus, combining the survey and semi-structured interviews in the present mixed methods study offers a more comprehensive understanding of students' academic engagement and their recollections of experiencing affective elements in their engagement.

4.5 Data collection procedures

4.5.1 Ethical considerations

Research studies concerning human beings as participants involve the obligation to apply for ethical approval before conducting the study. The present study was approved by the Ethics Committee of the School of Education in Durham University (Appendix G), prior to the data collection of the pilot study and the main study. As a respect for individuals participating in research studies, participants have provided with full and open information (Magnusson & Marecek, 2015) before agreeing to participate, such as the purpose of the present study and the use of the collected data. They were also reminded of their voluntary participation and their right to withdraw from the research for any reasons and at any time during the study (Christians, 2005; Joe, Raben, & Phillips, 2016). All participants taking part in the survey and interviews were provided with information about the study listed in the informed consent forms, specifying the purpose of the study, topics of questions to be asked and the approximate duration of the study, for instance 20 minutes for the survey and 60 minutes for the interviews. Respondents of interviews were also advised that the interviews would be audio-recorded, which I have specified in the informed consent form and explained to them verbally before the interviews began. They were also informed of how the data would be used in my research and that their responses would be reported in a written thesis without personal identification.

To protect their privacy, participants were ensured of confidentiality and anonymity that the survey data and interview data would be kept strictly confidential. The record of each survey participant was represented by a reference number and recorded as aggregated data when they were reported in the written thesis, without any personal identification. For the interview data, pseudo names of respondents were used when their quotes were being mentioned, without any specific information of

respondents that may make them potentially identifiable. Data storage and security was also considered carefully that all survey data was kept in a locked cabinet and password-protected files in my computer, which were only accessible by me as the researcher. The audio recordings of interview data were protected by passwords and saved in a personal computer, also protected by passwords, which was only accessible by me as the researcher. Names of the interview respondents were saved as pseudo names, which were not connected to their responses.

Another ethical consideration is related to my concurrent as a lecturer in Harmony University and a researcher in the present study, I took cautious considerations as I planned for the data collection, to minimise the potential influence relating to power issues between student participants and me. First, I had the data collection during the summer term when results of the second term were announced to all students, to avoid the potential issues and concerns regarding marking of assessment between student participants and their lecturers. At the time of data collection, none of the participants were my current students in any modules. Second, I was also aware that sometimes student participants might tend to report experiences in favour of the University and I addressed this by firstly guaranteeing all participants of the confidentiality and anonymity of the data collected. For interview respondents, I designed questions in the interview guide to ask them recalling experiences of disengagement, to alleviate their tendency to recall only positive experiences in their engagement (detail discussed in Section 4.4.2).

4.5.2 Phase 1 of the Main study: Survey

4.5.2.1 Participants of survey

Participants were recruited from Harmony University, a private university in Hong Kong where I worked as a lecturer. The University offers two-year Associate Degree programmes (similar to the foundation year of study in the UK) and two-year Top-up

Undergraduate Degree programmes, for graduates of Associate Programmes to proceed for their undergraduate. Contrary to university students registered in full undergraduate degree programmes, participants in Harmony University performed less satisfactorily in the public examination (details of the context of the study illustrated in Section 1.4.1). Thus, these participants took an alternative pathway to pursue their higher education by registering in and progressing from Associate Degree Programmes to Top-up Undergraduate Programmes.

4.5.2.2 Data collection

Before the data collection, I sought permission from the senior management of Harmony University (Appendix H), specifying the purpose of my study and the issues of ethical considerations. After the approval, I sent invitations to lecturers teaching General Education modules to seek their consent of visiting their classes, where non-first year students from various disciplines attended, so as to cover participants representing a range of disciplines of study. The first phase of data collection process began with the survey data and participants were invited to provide contact information if they were willing to volunteer to take part in an interview later. The volunteers were then contacted and invited for the semi-structured interviews in phase 2, details to be discussed in Section 4.5.3.

In the first phase of the data collection, a conventional printed survey and an online survey were developed and used. The printed survey was administered during break time or after lectures, with prior permission sought from the module lecturers. I visited the classes, explained the purpose of my study and issues of voluntary participation and confidentiality to the students, followed by an invitation given to students to participate in the study. An informed consent form was attached on the first page of the survey, which clearly stated issues of voluntary participation, the right to withdraw, confidentiality and anonymity as well as data protection. On the other

hand, an online survey with identical content was designed and administered using "Qualtrics", an online platform, which was officially purchased, endorsed and widely used by Harmony University in collecting student feedback, thus participants were familiar with its interface. Email invitations were sent to all first year students only in Harmony University to avoid duplication of participants from the printed survey (non-first-year students). In the email message, I attached a cover letter explaining the purpose of the study, followed by a web link of the online survey. An informed consent form was displayed on the cover page of the online survey to introduce the purpose of the research and explain the issues of voluntary participation, the right to withdraw, confidentiality and anonymity as well as protection of participant data. Recipients who agreed to participate were asked to confirm their consent of participation by selecting *"Agree to participate"* before proceeding to the content of the survey. At the end of the online survey, participants were also invited to provide their contact information if they agreed to volunteer to share about their learning experiences during an individual interview.

4.5.3 Phase 2 of the Main Study: Interview

4.5.3.1 Respondents of the interviews

Respondents of the semi-structured interviews were recruited from the volunteer participants from the survey in phase 1. From the printed survey, 16 volunteers responded and expressed their willingness to take part in an interview, while 51 volunteers from the online survey responded. I emailed invitation letters to all volunteers who responded, 20 respondents replied and they were recruited for the semi-structured interviews in phase 2 of the present inquiry.

4.5.3.2 Conducting the interviews

The interview took place in a quiet meeting room in Harmony University to ensure the privacy of the respondents. Before the interview, I presented an informed consent

form to each respondent and explained the purpose of the study, issues of confidentiality and anonymity as well as secured data storage. Respondents were also reminded of their voluntary participation and the right to withdraw from the interview at any time and that the interview would be audio-recorded. The interview began after the respondents had agreed and signed the informed consent form.

An interview guide was used throughout the course of the interview (discussed in Section 4.4.2 and attached as Appendix F). I began each interview by checking the demographic information with the respondents and started the interview in a conversational tone (Magnusson & Marecek, 2015) using some warm-up questions before moving on to the main questions. I set the parameters to invite respondents to focus on recalling their experiences relating to academic learning instead of other forms of non-academic learning, such as service learning and internship. Each respondent was asked the same main questions, yet the sequence and wordings of the questions might vary as appropriate and necessary to facilitate elaboration of responses from the respondents. During the course of the interviews, I asked follow-up questions to seek clarifications from respondents and to elicit detailed and rich descriptions from responses from respondents.

Interviews with each respondent lasted for approximately 45 to 60 minutes. All 20 interviews were conducted in Cantonese to facilitate respondents to articulate their innermost thoughts and feelings at ease using their first language. All interviews were audio-recorded with a digital device and I also took some notes during the interview. The notes taken facilitated me to probe follow-up questions, particularly when I heard some unanticipated content and when I needed some clarifications from the responses given by respondents. Audio-recorded interviews offered an advantage of allowing the conversation undisturbed and ensured the interview content would not be missed. The recorded interview scripts also provided an accurate representation of what was

said in the recollections of the respondents. In addition, after the interview, I could listen to the recording repeatedly for the data transcription, analysis and interpretation.

4.5.4 Survey data review and methods of analysis

4.5.4.1 Participants

A total of 270 printed copies of the survey were distributed with 194 copies completed and returned, giving a response rate of 71.9%. For the online survey, 76 completed copies were submitted after 1503 email invitations sent, giving a response rate of 5.1%. Therefore, 270 completed copies of survey (194 printed and 76 online) were received from participants with a mean age of 20.38. Among the participants, 112 (41.5%) were males and 158 (58.5%) were females; 148 (54.8%) were Associate Degree and 122 (45.2%) were Top-up Undergraduate Degree students (see Table 4.2). More details of the participants in relation to the context of the present study are discussed in Chapter 5 as I present findings from the survey.

Table 4.2

Demographics of survey participants

	Number (percentage) of participants
Gender	
Male	112 (41.5%)
Female	158 (58.2%)
Type of programmes	
AD programme	148 (54.8%)
UG programme	122 (45.2%)

Note:
AD: Associate Degree programme
UG: Top-up Undergraduate programme

4.5.4.2 Survey data collected

All survey data was coded into numerical data, converted and saved in the software *"Statistical Package for the Social Sciences"(SPSS, version 26)* for future statistical analysis. Before the data analysis, a *T*-test was computed to examine if there was a significant difference between the responses given by participants who completed the printed survey and those who completed the online survey before I combined the data from both sources for further analysis. Then, a correlation analysis was employed to address the first research question identifying the patterns of relationship between academic engagement and Psychological Capital. To examine the relationship between the two constructs more closely, simple regression and multiple regression analyses were also employed to investigate if academic engagement and Psychological Capital reported by participants was predictive of each other. Details of the analyses and the findings are presented and discussed in Chapter 5.

4.5.5 Interview data review and analysis

4.5.5.1 Data transcription

Twenty respondents participated in the semi-structured interviews, each of which lasted for about 45 to 60 minutes and was audio-recorded. The interviews were conducted in Cantonese, first language of the respondents, to facilitate respondents' expression of thoughts and feelings more thoroughly as they reflected on their learning experiences. To prepare for the interview data analysis, I completed the data transcription of all interview data in three phases, namely the dictation, accuracy checking and finally the translation. In the first phase, I listened to the audio recordings of all interviews and dictated the transcription verbatim in Cantonese, using the voice recognition function of a smartphone. In the second phase, after checking the accuracy of the Cantonese dictation, I referred to my notes taken during the interviews to supplement some aspects I found relevant and interesting to the

dictated transcripts. In the final phase, I translated the Cantonese transcripts into English for subsequent analysis. The benefits for me, as the researcher, to complete the interview data transcription were two-fold. First, doing the transcription by myself allowed me to immerse in the interview data and got familiarised with it and that I was able to develop deeper insights (Corden & Sainsbury, 2006) for further analysis and interpretation. Second, my knowledge about the present study and the context of Harmony University facilitated the accuracy and relevancy of the transcription than having it done by a transcriber.

4.5.5.2 The coding process

In the coding process, I used thematic analysis (Braun & Clarke, 2006, 2012, 2013; Clarke & Braun, 2017) to identify, analyse and report patterns to interpret the data as some overarching themes so as to represent the findings of the interview data. Braun and Clarke (2006, 2012, 2013) have outlined the following six phases for conducting a thematic analysis that I took reference when conducting the data analysis.

1. **Familiarising myself with the data**
2. **Generating initial codes**
3. **Searching for themes**
4. **Reviewing themes**
5. **Defining and naming themes**
6. **Producing the report**

Prior to the actual coding, I read all the translated transcripts repeatedly to get myself familiarised with the interview data and made notes as I noticed something relevant to address my research questions (Phase 1). In fact, I have been immersing in the data since I started working on the transcription for the interviews, which was considered as a key phase of data analysis (Bird, 2005). After that, I read the transcripts in detail and tried to generate some initial codes (Phase 2) as I noted parts of the data could be

useful to address my research questions. I took an eclectic approach to use both "a priori" codes and emergent codes (Bird, 2005) and I created a codebook (Guest, MacQueen, & Namey, 2012; Howitt & Cramer, 2017), in light of the conceptual framework I used in the present study, such as indicators of academic engagement and PsyCap. The codebook (attached as Appendix I) served as the basis for the "a priori" coding as I started the coding process, during which I made notes and referred to the indicators listed in my codebook when I noted relevant data to answer my research questions. As I continued with the coding process, I also paid attention to the new codes emerging from the interview data and added them to the codebook I have created. The second phrase involved merging and editing of the codes as I tried to integrate the emergent codes with the "a priori" codes. I will present and discuss this process further in the next section with the illustration of screenshots taken from a computer software. Then, I moved on to Phase 3 and began to search for themes when all the transcripts have been initially coded and collated. In this phase, I used different methods to look for themes from the initial codes generated using the following steps. I began with writing down possible names of the themes to capture the meaning of the identified codes and placed the relevant codes under those themes. Next, I tried to create thematic maps to formulate the overarching themes, sub-themes and their respective codes. An example of a thematic map is presented in Figure 4.4, reflecting a theme capturing students' interactions with their lecturers as they recalled their experiences of academic engagement, detail of the themes are presented in Chapters 6 to 9 as I report the findings for the interviews.

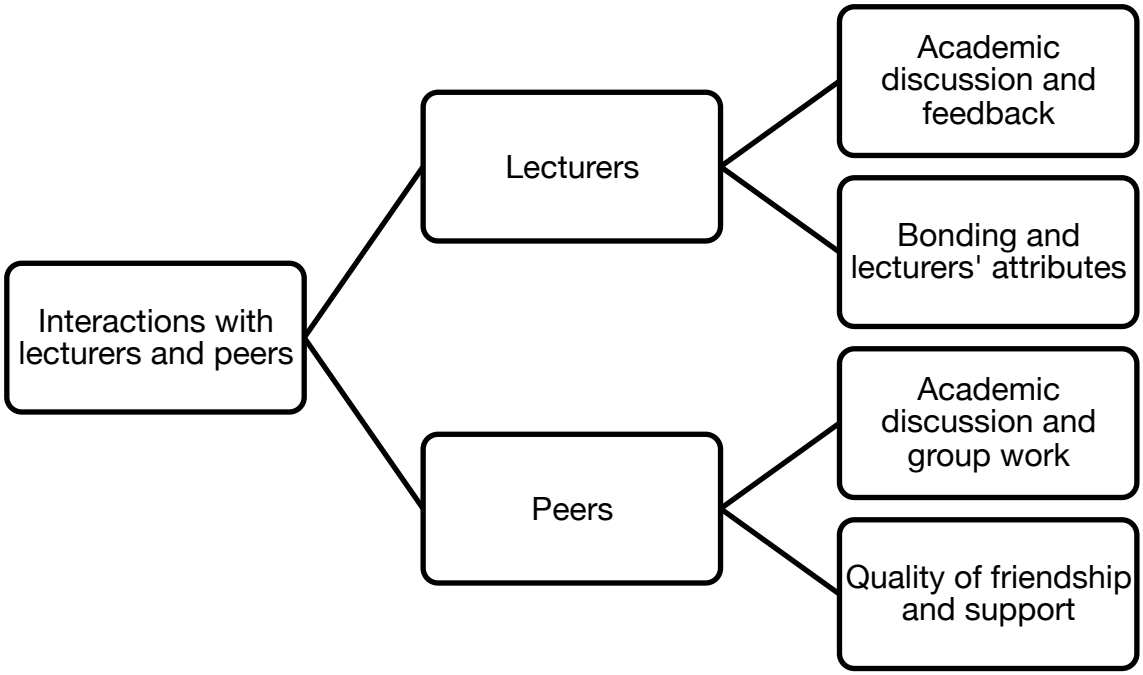


Figure 4.4. An example of the thematic map in the coding and analysis.

After creating the thematic maps, I continued to look for the connections between the themes and sub-themes to decide whether some overlapping codes can be merged to generate more succinct codes. This phase was still tentative as I continued to review the generated themes and codes (Phase 4) to check if they could address the answers to the second and third research questions, followed by Phase 5, which involved defining and naming the themes. In the final phase (Phase 6) of the thematic analysis, I presented the data in writing, during which I moved back and forth to the previous phases to review if the presented themes fit the data well. Similar to other methods of qualitative analysis, thematic analysis is a reiterative process that the various phases are related to each other that I went back and forth between the phases to review and edit the identified codes and themes as appropriate.

To ensure the accuracy of the translated quotations from respondents, I invited another staff member from Harmony University to check whether the translated English transcripts represented accurate meaning of the Cantonese transcripts of the respondents. The staff member was an experienced lecturer in Social Science and a

doctorate student with sound proficiency in English and Cantonese, who had sufficient knowledge about the research context. Sections of 5 respondents' transcripts were selected as samples for the accuracy check and the experienced lecturer confirmed that the translated English transcripts as reflecting an accurate translation of the Cantonese transcripts with some minor comments given, which I have taken into consideration before finalising the writing.

4.5.5.3 Using computer software

To facilitate data management, analysis and interpretation, I used *NVivo (version 12)*, a computer assisted qualitative data analysis software (CAQDAS), where the interview transcripts were stored and coding was administered and documented. Using CAQDAS in research enables the data management and analysis processes to be "transparent, consistent, accurate and rigorous" (Tummons, 2014, p.173), contributing to the rigour and validity of the study (Guest, MacQueen, & Namey, 2012; Howitt & Cramer, 2017; Silver & Lewins, 2014). With the provision of a clear record of audit trails of the research, using CAQDAS also facilitates my reflexivity over decision-making in the interpretation process. Furthermore, the use of software facilitates a quick and comprehensive search of specific segments of data (Silver & Lewins, 2014; Tummons 2014) and it allows a shift to retrieve data with a focus on individual respondents (see Figure 4.5) to a focus on the codes or themes (see Figure 4.6 to Figure 4.8).

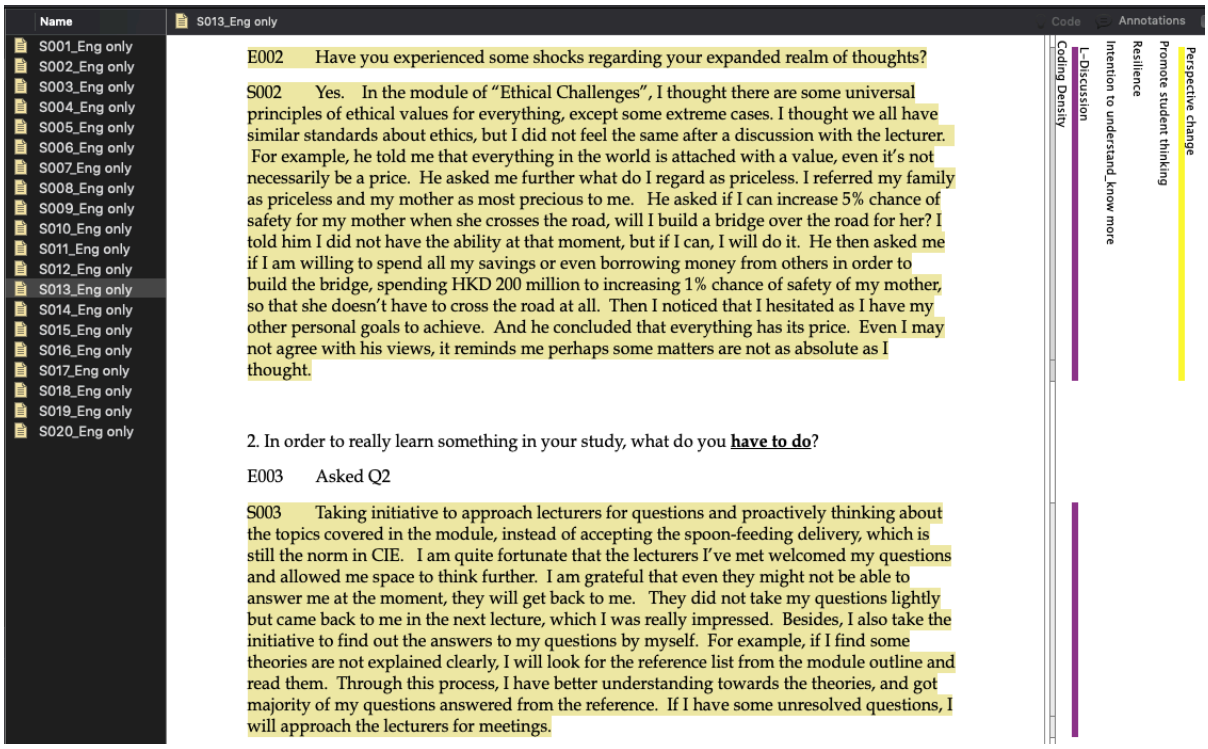


Figure 4.5. An example of retrieval of data focusing on individual respondents.

To facilitate the illustration, I present some screenshots from *NVivo* to illustrate the progression of the coding process as I integrated the emergent codes with the "a priori" codes. Figure 4.6 reflects the early stage of the coding process during which I closely followed the codebook (Appendix I), for instance, I arranged the codes in the categories of behavioural, affective and cognitive dimensions of academic engagement.

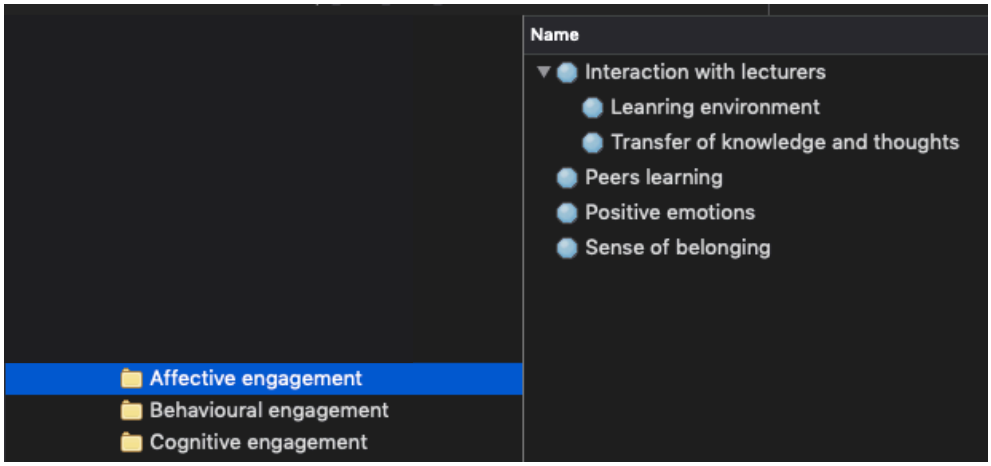


Figure 4.6. Initial stage of "a priori codes" referring to the codebook.

As I continued with the coding process, new codes kept emerging from the data, for instance, I noticed that respondents' experiences of academic engagement could be more holistically represented, if I modified the codes according to the key ideas found in respondents' responses (Figure 4.7), instead of confining by the three dimensions of academic engagement. Next, Figure 4.8 reflects the complexity of codes in a theme capturing respondents' interactions with lecturers as they recalled their experiences of academic engagement. Finally, Figure 4.9 shows the hierarchy of themes and sub-themes formulated towards the end of the coding process, reflecting the complexity of each theme and they became the basis for the themes to be reported in Chapter 6 to 9. These screenshots from *NVivo* represents the ongoing process of thematic analysis from data coding, theme generating and writing up, which were not final but changing from time to time throughout the data analysis.

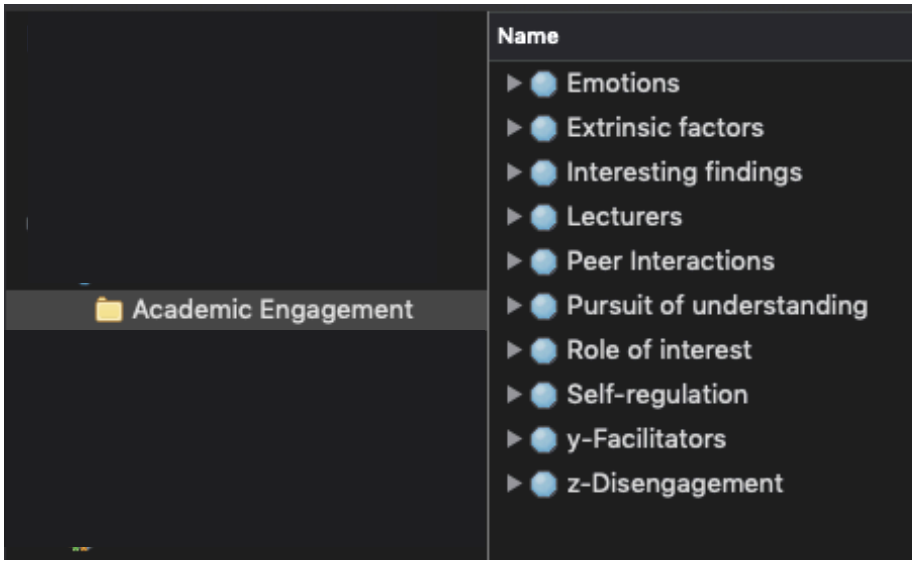


Figure 4.7. Emergent codes integrating with the "a priori" codes.

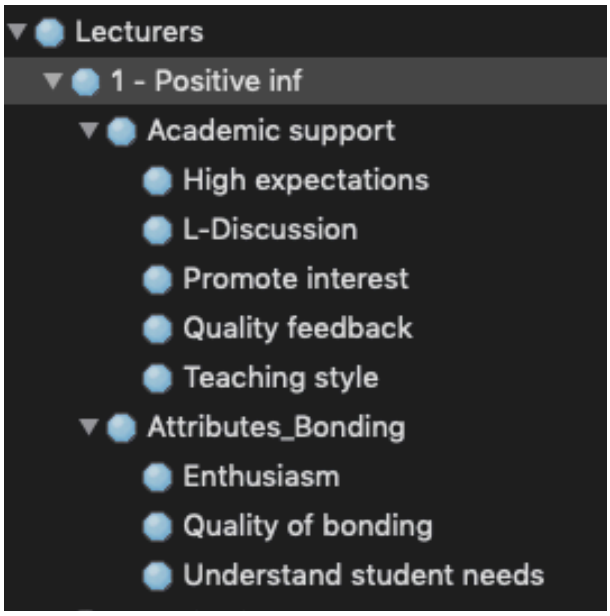


Figure 4.8. An example of a theme reflecting the complexity of codes.

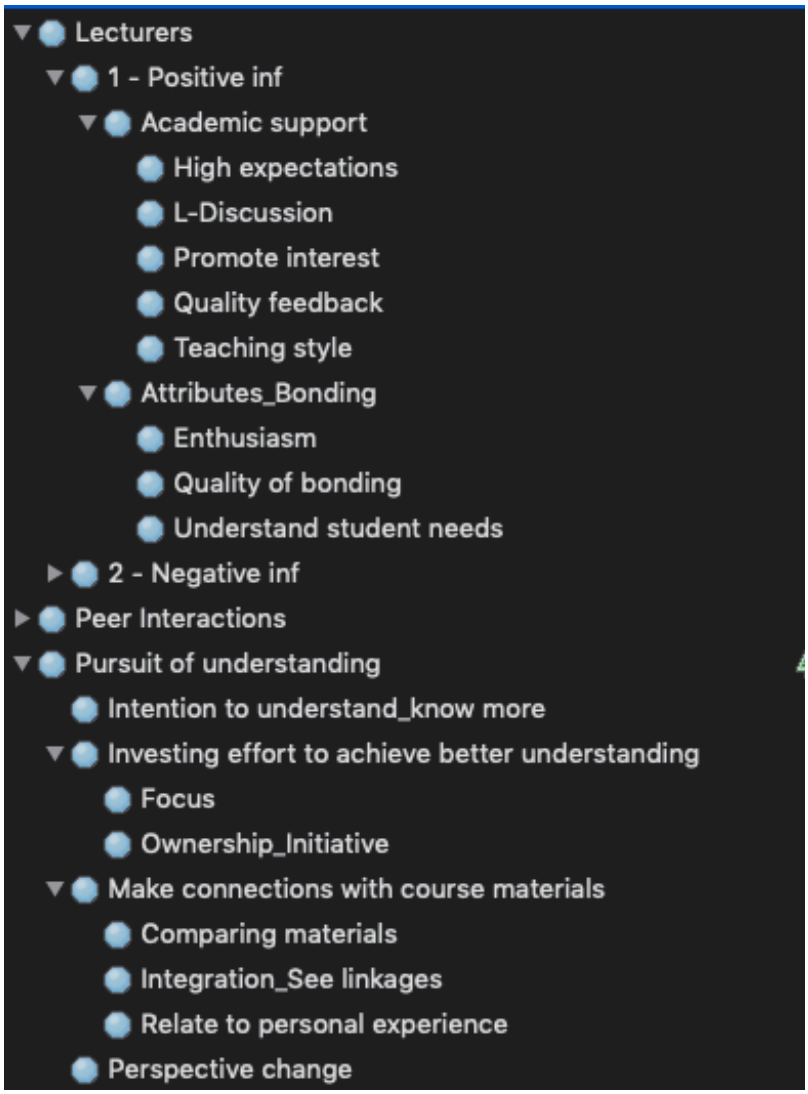


Figure 4.9. A screenshot reflecting a hierarchy of the themes and their sub-themes.

4.5.5.4 Profiles of respondents

Respondents of the present study were students registered in the Associate Degree or the Top-up Undergraduate Degree programmes. Among the 20 respondents, 7 were male and 13 were female, with an age range from 18 to 23, other particulars of respondents are summarised in Table 4.3, represented by pseudonyms. Further details of the respondents are presented in Chapter 6 as I start to discuss the findings from the interviews.

Table 4.3

Profiles of respondents from the interviews

	Name	Gender	Age	Programme of study	Year of study	cGPA
1	Alex	M	20	Geography and Resources Management	AD1	1.50
2	Amy	F	18	Cultural Studies	AD1	3.20
3	Bella	F	19	Creative Communication	AD2	3.52
4	Clara	F	20	Journalism	AD2	3.67
5	Billy	M	20	Psychology	AD2	2.80
6	Calvin	M	22	Human Resources Management	UG4	2.90
7	David	M	20	Creative Communication	AD2	3.40
8	Daisy	F	21	Creative Communication	AD2	3.25
9	Eddie	M	21	Music	AD2	2.35
10	Emma	F	20	Media Communication	AD2	3.73
11	Faye	F	20	Creative Communication	AD2	3.73
12	Frank	M	23	History and Hong Kong Studies	AD2	3.30
13	Gloria	F	19	Journalism	AD2	3.71
14	Heather	F	22	Creative Writing for Film, Television and New Media	UG3	2.81
15	Ivana	F	21	Environment and Resources Management	UG4	3.50
16	George	M	22	Environment and Resources Management	UG4	3.26
17	Jenny	F	22	Liberal and Cultural Studies	UG3	2.60
18	Kelly	F	19	Applied Social Service	AD1	2.76
19	Lucy	F	18	Environmental Conservation	AD1	3.73
20	Melissa	F	21	Creative Communication	AD2	3.15

Note:
AD1 & AD2 – Year 1 and Year 2 of Associate Degree
UG3 & UG4 – Year 3 and Year 4 of Top-up Undergraduate Degree (Beginning from Year 3)
cGPA – Cumulated Grade Point Average, reflecting academic achievement, full mark is 4.0

4.5.5.5 Main themes generated by the coding

From the interview data, I identified four main themes capturing respondents' recollections of their experiences and perceptions of academic engagement and the representation of affective dimension of learning in their academic work:

- **Theme 1: Respondents' bonding and encounters with lecturers and peers**
- **Theme 2: The affective elements associated with academic engagement**
- **Theme 3: The cognitive processes of academic engagement**
- **Theme 4: Experiences of disengagement from study**

I will present the particulars of each theme in Chapters 6 to 9 respectively and illustrate them with quotes from respondents and in light of findings from previous studies.

4.6 Summary of the Methodology Chapter

In this chapter, I introduced the mixed methods approach and justified the rationale for choosing it in the present investigation, focusing on the complementary strengths of using both quantitative and qualitative approaches to address the needs of the three research questions. Then, I introduced the research design and illustrated the inquiry process adopted in the present study. Next, I moved on to illustrate how I have taken reference from the validation criteria from both quantitative and qualitative methods to enhance the rigour of the study. Furthermore, I identified and addressed the limitations of the present methodology by practising reflexivity as a researcher, acknowledging how my personal assumptions, knowledge, beliefs would potentially influence the research process. I explicitly discussed my positionality in relation to the inquiry process and acknowledged the importance to stay cautious to mitigate the potential influence of personal bias in the inquiry process. After that, I presented the process of developing the survey items and the interview guide for the semi-structured interview as instruments for the inquiry, followed by ethical considerations

and the data collection process. Lastly, I presented an overview of the data collected for the survey and the interview as well as how the data would be analysed respectively, with the results of the survey to be presented in the next chapter.

Chapter 5

Findings of the survey

5.1 Chapter overview

In this chapter, I present findings and discussion of the results from the survey, which aim to measure the levels of academic engagement and Psychological Capital (PsyCap) of higher education students in Harmony University. The analysed results addressed the first research question of the present study - to identify the relationship between self-reported Academic Engagement and Psychological Capital (PsyCap) in higher education students in Hong Kong. To this end, data analyses were computed to examine the scales measuring the multiple dimensions of both Academic Engagement and PsyCap. I will begin the chapter by introducing the use of terms in the result analyses and discussion, followed by a presentation of preliminary analyses, including demographics of the participants and reliabilities of the instruments used. Next, I will present the descriptive statistics and correlation results between Academic Engagement and PsyCap. Moving on, I will present the results of the regression models, which were computed to examine the predictors of Academic Engagement and PsyCap. As I present the results of the analyses, I will also discuss the findings in light of the previous studies and explain the contribution of the present study. Then, I will end this chapter by discussing the implications of the survey results on higher education practices. Finally, I will set out the limitations of using a survey alone and explain the importance of incorporating the semi-structured interviews in the present study, with findings to be reported in the subsequent Chapters.

5.1.1 Use of terms in this chapter

In the survey, the constructs of Academic Engagement and Psychological Capital were measured by a combination of scales reflecting their individual dimensions (details refer to Section 4.3.2 – The Instruments) and I provide a summary of the scales below

for easy reference. In this chapter, I use "Academic Engagement" (capitalised) to refer to the composite scale combining different dimensions measuring the construct, while "academic engagement" is used when I refer to the experiences and processes of students' engagement in their study in general.

Dimensions / components of Academic Engagement (Acad Eng):

- Behavioural Engagement (BE)
- Affective Engagement (AE)
- Cognitive Engagement (CE, with 2 sub-scales)
    - Approach to learning (CE-ATL)
    - Self-regulated learning (CE-SRL)

Dimensions / components of Psychological Capital (PsyCap):

- Self-efficacy (SE)
- Hope (H)
- Academic Resilience (RES)
- Optimism (OPT)

Participants in the survey

- AD participants – students registered in Associate Degree programme
- UG participants – students registered in Top-up Undergraduate Degree programme

5.2 Preliminary analyses

I used the software *Statistical Package for Social Sciences (SPSS, version 26)* to conduct the data analyses for the survey. Before conducting the analyses of inferential statistics, I computed preliminary analyses to report some basics, such as the demographics of the sample, reliabilities of the instruments used and descriptive statistics of the survey data collected.

5.2.1 Demographics of participants

The present study was conducted in Harmony University, a private university in Hong Kong with a population of 4,472 students at the time of the data collection. Among them, 3061 (68.4%) of students were registered on the two-year Associate Degree (AD) programme, while 1411 (31.6%) of them were students from the two-year Top-up Undergraduate (UG) programme. The sample for the survey consisted of 270 participants (details see Table 5.1), with 112 male (41.5%) and 158 female (58.5%) participants from the five faculties of arts, business, communications, science and social sciences. The average age of the participants was 20.38 (*SD* = 1.84). Among them, 148 (54.8%) were students who registered on the two-year Associate Degree programme (AD) and 122 (45.2%) of them were registered on the two-year Top-up Undergraduate Degree programme (UG).

Table 5.1

Demographics of survey participants

	Number (percentage) of participants
Gender	
Male	112 (41.5%)
Female	158 (58.5%)
Type of programmes	
AD programme	148 (54.8%)
UG programme	122 (45.2%)
Faculties	
Arts	44 (16.3%)
Business	73 (27%)
Communication	61 (22.6%)
Science	27 (10%)
Social Science	65 (24.1%)

Note:
AD: Associate Degree programme
UG: Top-up Undergraduate programme

5.2.2 *T*-tests to justify further analyses

Before doing the data analysis, I conducted three independent-sample *t*-tests to examine if there were differences in the reported scores between (1) participants completing the two modes of survey – a conventional printed survey and an online survey; (2) male and female participants and; (3) AD and UG participants. The reason for conducting these *t*-tests was to provide justifications for later decisions concerning whether to combine some groups for further analysis, which I will explain in detail as I report the results of the *t*-tests in the later sub-sections.

5.2.2.1 Comparing the two modes of survey completion

Amid the 270 participants, 194 (71.9%) completed the printed survey while the remaining 76 (28.1%) completed the online survey, and both versions of survey were composed of identical items measuring students' Academic Engagement and PsyCap. The first independent samples *t*-test was conducted to compare the data collected from the printed survey and online survey. Table 5.2 presents the means (*M*) and standard deviations (*SD*) of the reported scores on the composite Academic Engagement and PsyCap from two modes of survey completion as well as the *t*-test results, indicating that there was no statistical difference ($p > .01$) between the reported scores from the two modes of survey completion. These results suggest that it is appropriate to combine participants completing the survey in the two modes into a single data set (N=270) for further data analyses. The complete *t*-test results for all the sub-scales measuring Academic Engagement and PsyCap are attached as Appendix J.

Table 5.2

T-test results comparing two modes of survey completion

	Descriptive statistics Printed (n=194) Online (n=76)			***T*-test for Equality of Means**		
Scale	**Mode of survey**	**Mean**	**SD**	**t**	**df**	**Sig. (2-tailed)**
Academic Engagement	Printed	3.54	0.41	Equal variances assumed	-1.78	268	.08
	Online	3.64	0.52	Equal variances not assumed	-1.61	114.02	.11
Psychological Capital	Printed	3.50	0.51	Equal variances assumed	-0.32	268	.75
	Online	3.52	0.65	Equal variances not assumed	-0.28	113.13	.78

5.2.2.2 Gender

The second independent samples t-test was computed to examine if there were gender differences in the reported scores of Academic Engagement and PsyCap. Table 5.3 presents the means (*M*) and standard deviations (*SD*) of the reported scores on the composite Academic Engagement and PsyCap between male and female participants as well as the *t*-test results, which indicate that there was no statistical difference ($p > .01$) in the reported scores from all scales. These results suggest that it is appropriate to combine both male and female participants for further data analyses. As for the complete *t*-test results for all the sub-scales constituting Academic Engagement and PsyCap, they are attached as Appendix K.

Table 5.3

T-test results comparing male and female participants

Number of participants Male: n=112; Female: n=158					*T*-test for Equality of Means		
Scale	**Gender**	**Mean**	**SD**		t	df	Sig. (2-tailed)
Academic Engagement (combined)	Male	3.62	0.44	Equal variances assumed	1.49	268	.137
	Female	3.53	0.45	Equal variances not assumed	1.50	241.40	.136
PsyCap	Male	3.54	0.57	Equal variances assumed	0.92	268	.360
	Female	3.48	0.55	Equal variances not assumed	0.91	233.60	.363

5.2.2.3 Levels of study

A last independent samples *t-test* was computed to examine if there was significant differences in the reported scores of Academic Engagement and PsyCap between AD and UG participants The *t*-test results in Table 5.4 indicate that there was a statistical difference ($p < .05$) in the reported scores for the behavioural and cognitive dimensions of Academic Engagement, but no significant difference ($p > .01$) was found in the PsyCap scales. The means (*M*) and standard deviations (*SD*) of the scales showing a significant difference between AD and UG participants are presented Table 5.4, while the complete results for all scales are attached as Appendix L.

Table 5.4

T-test results comparing AD and UG participants

Level of study AD: n=148; UG: n=122					t-test for Equality of Means		
Scale	**Level**	**Mean**	**SD**		**t**	**df**	**Sig. (2-tailed)**
BE	AD	4.05	0.54	Equal variances assumed	3.839	267	.000
	UG	3.80	0.52	Equal variances not assumed	3.853	259.807	.000
CE	AD	3.52	0.49	Equal variances assumed	2.022	267	.044
	UG	3.41	0.40	Equal variances not assumed	2.063	266.998	.040
CE-SRL	AD	3.52	0.51	Equal variances assumed	2.441	267	.015
	UG	3.38	0.43	Equal variances not assumed	2.483	266.769	.014
AcadEng	AD	3.63	0.48	Equal variances assumed	2.431	267	.016
	UG	3.50	0.39	Equal variances not assumed	2.483	266.964	.014

BE: Behavioural; CE: Cognitive Engagement;
CE-SRL: Cognitive Engagement-Self-regulated learning;
Acad Eng: Composite Academic Engagement

As shown in Table 5.4, AD students reported significantly higher scores than UG students in some academic engagement scales ($p < .05$) summarised as follows:

- Behavioural Engagement:

  Higher scores reported for behavioural engagement in AD students ($M = 4.05$, $SD = 0.54$) than UG students ($M = 3.80$, $SD = 0.52$), $t\ (267) = 3.839$.

- Self-regulated learning sub-scale in Cognitive Engagement

  Higher scores reported for Self-regulated Learning in AD students ($M = 3.52$, $SD = 0.51$) than UG students ($M = 3.38$, $SD = 0.43$), $t\ (267) = 2.441$, $p < .05$.

- Cognitive Engagement

  Higher scores reported for Cognitive Engagement in AD students (M = 3.52, SD = 0.49) than UG students (M = 3.41, SD = 0.40), t (267) = 2.022, $p < .05$.

- Composite Academic Engagement

  Higher scores reported for composite Academic Engagement in AD students (M = 3.63, SD = 0.48) than UG students (M = 3.50, SD = 0.39), t (267) = 2.431, $p < .05$.

The significant difference found in the reported scores in the Academic Engagement scales between AD and UG participants provide justification for splitting AD and UG participants in conducting subsequent analyses to examine the relationship between Academic Engagement and PsyCap more closely (See Section 5.3.2).

5.2.3 Reliability of the instrument

In the present study, the reliability of the instrument was measured by the internal consistency between items to indicate how well they measure the same construct, for instance, how well have the 6 items measured the various aspects of Self-efficacy in PsyCap. A Cronbach's alpha is presented as an indicator reflecting such internal consistency between items (Cortina, 1993; Nunnally, 1994; Taber, 2018) with a value over .70 is considered as having a satisfactory reliability (Cortina, 1993; Nunnally; Taber, 2018). The construct of Academic Engagement was measured by its three scales (listed below), with Cronbach's alphas of .73, .86 and .90 reported for Behavioural Engagement, Affective Engagement and Cognitive Engagement respectively, reflecting satisfactory reliabilities (i.e. an alpha over .70, see Table 5.5). The scale of Cognitive Engagement was comprised of two sub-scales of Approaches to Learning and Self-regulated Learning, also reporting satisfactory reliabilities of .84 and .80 respectively.

Finally, when the internal consistency of Academic Engagement was examined as a composite construct, a Cronbach's alpha of .93 was obtained, reflecting a sound internal consistency. Another construct of PsyCap was measured in terms of its four scales (listed below) with internal consistencies examined and satisfactory reliabilities obtained from all scales, reflecting in Cronbach's alphas which showed .86 for Self-efficacy, .86 for Hope, .75 for Academic Resilience, .78 for Optimism, and lastly .93 for PsyCap as a composite construct. Therefore, satisfactory reliabilities (reflected in Cronbach's alpha value over .70) were reported for all scales measuring Academic Engagement and PsyCap, see details in Table 5.5.

Table 5.5

Reliabilities of scales in Academic Engagement and PsyCap

Construct	Scale and sub-scale	Cronbach's alpha
Academic engagement	Behavioural Engagement	.73
	Affective Engagement	.86
	Cognitive Engagement	.90
	Cognitive Engagement – Approaches to learning	.84
	Cognitive Engagement – Self-regulated learning	.84
	Academic engagement (combined)	*.93*
Psychological Capital	Hope	.86
	Self-efficacy	.86
	Academic Resilience	.75
	Optimism	.78
	Psychological Capital (combined)	*.93*

5.2.4 Descriptive statistics

Participants completing the survey were asked to report their scores on Academic Engagement and PsyCap by responding to a 5-point Likert scale, with 5 as the highest

score, indicating the higher levels of participants' investment of time and effort in academic work (Academic Engagement) and self-appraisal of their PsyCap, with 1 as the lowest score, indicating the lowest levels of the two constructs. Participants' responses on the individual items were aggregated to form the total scores representing the composite constructs of Academic Engagement and PsyCap and their sub-dimensions respectively. Their aggregated scores were computed and presented as means (*M*), standard deviations (*SD*) and the range of mean scores in Table 5.6.

Table 5.6

Descriptive statistics for scales of Academic Engagement and PsyCap

Scale and sub-scale	Mean	SD	Min	Max	Range
Behavioural Engagement	3.94	0.54	2.33	5.00	2.67
Affective Engagement	3.73	0.64	1.50	5.00	3.50
Cognitive Engagement	3.47	0.45	2.30	4.88	2.58
Cognitive Engagement – Approaches to Learning	3.49	0.48	2.06	4.94	2.88
Cognitive Engagement – Self-regulated learning	3.45	0.48	2.18	4.82	2.65
Composite Academic Engagement	*3.57*	*0.44*	*2.36*	*4.87*	*2.51*
Self-efficacy	3.77	0.63	1.33	5.00	3.67
Hope	3.56	0.71	1.50	5.00	3.50
Academic Resilience	3.43	0.61	1.83	5.00	3.17
Optimism	3.27	0.70	1.33	5.00	3.67
Composite Psychological Capital	*3.51*	*0.56*	*2.13*	*4.96*	*2.83*

5.2.4.1 Academic Engagement

Participants' levels of self-reported Academic Engagement were reflected in its three sub-scales as well as in a combined score for Academic Engagement. As presented in Table 5.6, participants reported mean scores of 3.94 for Behavioural Engagement

(*SD* = 0.54, *range* = 2.67 [from 2.33 to 5.00]), 3.73 for Affective Engagement (*SD* = 0.64, *range* = 3.73 [from 1.50 to 5.00]) and 3.47 for Cognitive Engagement (*SD* = 0.45, *range* = 2.58 [from 2.30 to 4.88]). As for the two sub-scales constituting Cognitive Engagement, namely Approaches to Learning and Self-regulated Learning, participants reported a mean score of 3.49 (*SD* = 0.48, *range* = 2.88 [from 2.06 to 4.94]) and 3.45 (*SD* = 0.48, *range* = 2.65 [from 2.18 to 4.82]) respectively. All scales representing the three dimensions were combined to form a total score for Academic Engagement, which reported a mean score of 3.57 (*SD* = 0.44, *range* = 2.51[from 2.36 to 4.87]). The results showed a generally higher level of mean scores for Academic Engagement, indicating that participants perceived themselves as having a high degree of time and effort invested in their academic work. Among the three dimensions of Academic Engagement, participants reported the highest mean score in the dimension of Behavioural Engagement (*M = 3.94)*, whereas the lowest score for Cognitive Engagement (*M = 3.47).*

5.2.4.2 Psychological Capital (PsyCap)

Participants' levels of self-reported PsyCap were reflected in its four scales as well as in a combined score of PsyCap. As presented in Table 5.6, participants reported mean scores of 3.77 on Self-efficacy (*SD = 0.63, range* = 3.67 [from 1.33 to 5.00), 3.56 on Hope (*SD = 0.71, range* = 3.50 [from 1.50 to 5.00]), 3.43 on Academic Resilience (*SD = 0.61, range* = 3.17 [from 1.83 to 5.00]) and 3.27 on Optimism (*SD = 0.70, range* = 3.67 [from 1.33 to 5.00]). When the four scales were combined as a total score of PsyCap, a mean score of 3.51 was reported (*SD* = 0.56, range = 2.83 [from 2.13 to 5.00]*).* Among the four components of PsyCap, participants reported the highest mean score for Self-efficacy (*M* = 3.77), whereas the lowest score for Optimism (*M* = 3.27).

5.3 Data analysis

The purpose of employing the survey in the present study is to address the first research question by explaining the relationship identified between academic engagement and PsyCap. In the following sections, I will introduce the method of analysis, and then use the results from the correlation analyses and the regression models to answer the first research question in detail.

5.3.1 Method of analyses

Correlation and regression analyses were computed to address the first research question examining the relationship between self-reported academic engagement and Psychological Capital (PsyCap) in higher education students in Hong Kong. First, a correlation analysis was computed to examine the direction (positive or negative) and the strength (strong or weak) of the relationship between the two constructs. Second, in order to further investigate the relationship between the two constructs in greater detail, regression analyses were computed to examine the predictors of Academic Engagement and PsyCap respectively. Given the differences found in the reported scores for the sub-scales of Behavioural and Cognitive Engagement between AD and

UG students (discussed in Section 5.2.2 and presented in Table 5.4), the correlation and regression analyses were first computed for the whole sample (i.e. all participants), followed by separating analyses for participants from AD and UG programmes respectively.

5.3.2 Correlation analyses

To examine the relationship between Academic Engagement and PsyCap, a Pearson's correlation analysis was computed for all scales of the two constructs. Results of correlation analyses are represented by the values of correlation coefficients (*r*) *to* indicate the strength of the correlation (Akoglu, 2018; Moore, Notz & Fligner, 2021) with higher values of *r* indicating stronger correlation between two constructs, for instance, a *r* over .70 signifies a strong correlation between the two constructs (See Table 5.7). In the present study, correlation analyses between all scales measuring Academic Engagement and PsyCap were first conducted for all participants, followed by that of AD participants and UG participants, and their results are presented in the later sub-sections.

Table 5.7

The strengths of corelation indicated by correlation coefficients (r)

Correlation coefficient (*r*)	**Strength of correlation**
r less than .30	Very weak
r between .31 to .50	Moderate
r over .70	Strong

5.3.2.1 Correlation between Academic Engagement and PsyCap

The first correlation analysis was computed for all scales of the two constructs for all participants, with results presented in the correlation matrix in Table 5.8, indicating positive and significant correlations ($p < .01$) between all scales of Academic Engagement and PsyCap reported by all participants (N=270). A positive and strong correlation were found between composite Academic Engagement and composite

PsyCap (r =. 75, p < .01), indicating high levels of self-reported Academic Engagement are associated with high levels of self-reported PsyCap. The correlation matrix also reveals positive correlations between composite PsyCap and the three dimensions of Academic Engagement, namely:

- Behavioural Engagement (r = .55, p < .01)
- Affective Engagement (r =. 59, p < .01) and;
- Cognitive Engagement (r = .74, p < .01).
- Cognitive Engagement - Approaches to Learning (r = .69, p < .01).
- Cognitive Engagement - Self-regulated Learning (r = .70, p < .01).

Table 5.8

A correlation matrix between Academic Engagement and PsyCap scales for all participants (N=270)

		1 BE	2 AE	5 CE	3 CE-ATL	4 CE-SRL	6 Acad Eng	7 SE	8 H	9 RES	10 OPT	11 PsyCap
1	BE	-										
2	AE	.61**	-									
5	CE	.63**	.67**	-								
3	CE-ATL	.60**	.67**	.94**	-							
4	CE-SRL	.59**	.60**	.95**	.77**	-						
6	Acad Eng	.75**	.79**	.98**	.92**	.91**	-	.				
7	SE	.62**	.48**	.70**	.63**	.67**	.71**	-				
8	H	.49**	.58**	.69*	.66**	.65**	.71**	.59**	-			
9	RES	.46**	.53**	.64**	.59**	.61**	.65**	.58**	.73**	-		
10	OPT	.28**	.40**	.46**	.44**	.43**	.47**	.41**	.64**	.67**	-	
11	PsyCap	.55**	.59**	.74**	.69**	.70**	.75**	.76**	.89**	.88**	82**	-

Note: ** p< .01

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SRL: Cognitive Engagement-Self-regulated learning; Acad Eng: Composite Academic Engagement;
SE: Self-efficacy; H: Hope; RES: Academic Resilience; OPT: Optimism;
PsyCap: Composite Psychological Capital

Among the positive correlations found, a strong correlation was identified between PsyCap and Cognitive Engagement (r over .70), while moderate correlations were identified between PsyCap and the dimensions of Behavioural and Affective Engagement (r = .55 to .59 respectively). These positive correlations indicate that participants reporting higher levels of PsyCap are likely to report being more participative during lectures (Behavioural Engagement), to report showing more interest in their study (Affective Engagement) and to report investing time to understand the learning materials beyond lectures (Cognitive Engagement). Similarly, significant and positive correlation were also reported between composite Academic engagement and all four scales of PsyCap, namely:

- Self-efficacy (r = .71, p < .01);
- Hope (r = .71, p < .01);
- Academic Resilience (r = .65, p < .01) and;
- Optimism (r = .47, p < .01).

These results indicate that high levels of Academic Engagement are associated with high levels of all PsyCap components of Self-efficacy, Hope, Academic Resilience and Optimism. Amid the four scales, a strong and positive correlation were identified between Academic Engagement and the scales of Self-efficacy and Hope, both having a correlation coefficient of .71, whereas a moderate correlation was identified between Academic Engagement and the scales of Academic Resilience and Optimism, reporting correlation coefficients of .65 and .45 respectively.

In addition to the positive correlations found between the two composite constructs of Academic Engagement and PsyCap, the correlation matrix in Table 5.8 also indicates positive correlations between the three dimensions of Academic Engagement as well as between the four scales of PsyCap. These correlations support the interdependence between the three dimensions in Academic Engagement (Fredricks et al., 2004; Furlong

& Christenson, 2008; Kahu, 2013) and also that between the components of PsyCap (Avey et al., 2008; Dawkins et al., 2013) as identified in previous studies.

5.3.2.2 Discussion of correlation results

(a) PsyCap and Academic Engagement as composites

All three dimensions of Academic Engagement were positively correlated with all four PsyCap components, with correlation coefficients ranging from .28 to .75 and all of which were statistically significant ($p < .01$). A strong and positive correlation ($r =. 75$) was found between the composite Academic Engagement and composite PsyCap, which indicates that students reporting higher levels of PsyCap tend to invest more time, effort and energy in their academic work. This finding is consistent with previous studies revealing positive correlations between Academic Engagement and PsyCap in university students (Fati et al., 2019; Luthans et al., 2016; Martínez et al., 2019; Siu et al., 2014). Those studies have primarily focused on identifying the relationship between Academic Engagement and PsyCap as composite constructs, whereas findings from the present study expand the investigation by examining the multiple dimensions of the two constructs, which were also found to have positive correlations with each other. The positive correlations identified between the scales measuring Academic Engagement and PsyCap indicate that all dimensions (behavioural, affective and cognitive) of Academic Engagement were positively correlated with all PsyCap components of Hope, Self-efficacy, Academic Resilience and Optimism. In the next two sections, I will explain those positive correlations with reference to the literature, followed by some additional analyses to further investigate the pattern of the correlation between the two constructs, which I will address and discuss in the coming two sections.

(b) Self-efficacy and Academic Engagement

Positive correlations were found between Self-efficacy and the combined Academic Engagement (r = .71), the individual dimensions of Behavioural (r = .62), Affective (r = .48) as well as Cognitive Engagement (r = .70), including its sub-scales reflecting a Deep Approach to Learning (r = .63) and Self-regulated Larning (r = .67). These findings are consistent with previous studies reporting positive correlations between Self-efficacy and composite Academic Engagement and its Behavioural dimension (Vera et al., 2014) as well as its Cognitive dimension, including the Deep Approach to Learning (Galyon et al., 2012) and Self-regulated Learning (Diseth, 2011; Drysdale & Mcbeath, 2018; Phan, 2010). In the present study, a positive and moderate correlation was also reported between Self-efficacy and Affective Engagement (r = .48), which has received less attention in the literature, and is also found to be positively linked with other PsyCap components (see later sections).

Self-efficacy is represented by students' self-perceived ability to perform academic tasks and achieve academic goals (Trigwell & Ashwin, 2005). Results in the present study indicate that Self-efficacy is positively associated with the behavioural, affective and cognitive dimensions of academic engagement that self-efficacious students are likely to manifest their engagement with study in multiple dimensions. For instance, they are likely to be more attentive and participative in lectures (behavioural engagement), plan strategies for achieving their desired academic goals (cognitive engagement) and experience more positive emotional experiences with their study (affective engagement), possibly related to their interest as well as a greater likelihood of achieving academic success.

(c) Hope and Academic Engagement

Hope, another component of PsyCap, was also found to have a strong and positive correlation with composite Academic Engagement (r = .71), supporting previous

studies which showed the influence of hope on academic engagement of university students (Yoon et al., 2015). In the present study, positive correlations were also reported between Hope and the Behavioural (r = .49), Affective (r = .58) and Cognitive dimensions (r = .53) of Academic Engagement. Hope is represented by a determination to initiate plans and the use of multiple pathways to achieve the goals (Seirup & Rose, 2011; Yoon et al., 2015). These results indicate that students with higher levels of Hope tend to engage themselves and develop various pathways to achieve academic goals they have set. For instance, in terms of their Cognitive Engagement, students reporting higher levels of Hope are likely to change the way they read materials when they found difficult to comprehend using their usual ways, i.e. use of multiple pathways to achieve the goal of understanding. I will discuss those pathways employed by the participants in the present study, represented and discussed in the coming chapters covering the interview findings.

(d) Academic Resilience and Academic Engagement

As for Academic Resilience, as shown in Table 5.8, positive correlations were identified between composite Academic Engagement (r = .65) and its dimensions of Behavioural (r = .46), Affective (r = .53) and Cognitive engagement (r = .64). Academically resilient students are characterised by their tendency to overcome challenges and setbacks in their study, which enhances their academic resilience and prepares them to cope better when they face difficulties in the future (Snyder et al., 1991; Snyder, Rand, et al., 2002). Findings from the present study indicating the positive correlations between academic resilience and individual dimensions in Academic Engagement support studies which showed that academically engaged students have enhanced their academic resilience after they have overcome setbacks in their study (Hensley et al., 2015; Richards et al., 2013).

(e) Optimism and Academic Engagement

The last component of PsyCap, Optimism, was positively correlated with composite Academic Engagement (r = .47), corroborating findings from previous studies (Nurttila et al., 2015). At the same time, Optimism was also positively correlated with the Behavioural (r = .28), Affective (r = .40) and Cognitive dimensions (r = .46) of Academic Engagement. Students who are optimistic have an expectancy of positive outcomes in their study (Carver & Scheier, 2002) and tend to invest greater effort in pursuing their academic goals, thus, likely to be more engaged in study. In addition, optimistic students hold a positive explanatory style (Seligman, 2006) that they tend to externalise academic failures to other circumstances rather than to their own abilities and interpret the failures as temporary and situation-specific. Thus, the optimistic students are more likely to overcome the frustrations associated with failures and setbacks in order to persist in pursuing their academic goals and stay engaged in their study. Results from the present study reveal that the strength of correlations between Academic Engagement and Optimism were weaker (r = .28 to .46) than those between Academic Engagement and other PsyCap components (r = .46 to .71) and this difference will be discussed further when I present and discuss the results of regression analyses (see Section 5.3.4).

(f) PsyCap and Academic Engagement

Finally, when PsyCap was examined as a composite construct, it was positively correlated with all three dimensions of Behavioural Engagement (r = .55), Affective Engagement (r = .59) and Cognitive Engagement (r = .74). These findings indicate that students reporting higher levels of PsyCap tend to be more engaged in their study in all dimensions, such as more participative during lectures (Behavioural Engagement), experiencing more positive emotions regarding their study (Affective Engagement) and more likely to adopt a deep approach to learning and being able to use self-

regulated strategies (Cognitive Engagement). These correlations identified between PsyCap and the individual dimensions of Academic Engagement expand the current understanding between the specific aspects of the two constructs.

5.3.2.3 Correlation analyses for the two groups of participants

Given the significant differences found between the reported scores on Academic Engagement scales between AD and UG participants presented in Section 5.2.2.3, correlations analyses were computed for them separately to examine if there were differences in the results, compared to the correlations for all participants. Results showing the correlation matrices between individual dimensions of Academic Engagement and PsyCap components for AD and UG participants are presented in Table 5.9 and Table 5.10 respectively, while the full correlation matrices for all scales are attached in Appendices M and N respectively.

(a) AD students

The correlation matrix in Table 5.9 shows a positive and strong correlation (r =. 82, $p < .01$) between composite Academic Engagement and composite PsyCap in AD students as well as between composite PsyCap and the three dimensions of Academic Engagement and their sub-scales, namely:

- Behavioural Engagement ($r = .64$, $p < .01$);
- Affective Engagement ($r =. 69$, $p < .01$);
- Cognitive Engagement ($r = .79$, $p < .01$);
- Cognitive Engagement - Approaches to Learning ($r = .76$, $p < .01$) and;
- Cognitive Engagement - Self-regulated Learning ($r = .76$, $p < .01$).

Among all the correlations, stronger ones were identified between composite PsyCap and Cognitive Engagement and its sub-scales (r between .76 to .79), while moderate correlations were identified between PsyCap and the dimensions of Behavioural and Affective Engagement (r between .64 to .69).

Similarly, significant and positive correlations were also reported between Academic Engagement and the four scales of PsyCap, namely:

- Self-efficacy (r = .79, p < .01);
- Hope (r = .73, p < .01);
- Academic Resilience (r = .74, p < .01) and;
- Optimism (r = .54 p < .01).

Amid the four scales, stronger correlations (r = .73 to .74) were identified between composite Academic Engagement and the three PsyCap components of Self-efficacy, Hope and Academic Resilience, whereas a moderate correlation (r = .54) was identified between composite Academic Engagement and Optimism.

Table 5.9

A correlation matrix between Academic Engagement and PsyCap scales for AD participants (n=148)

		1 BE	2 AE	3 CE	4 CE-ATL	5 CE-SRL	6 Acad Eng
7	Self-efficacy	.76**	.57**	.76**	.72**	.74**	.79**
8	Hope	.52**	.61**	.72**	.70**	.68**	.73**
9	Academic Resilience	.54**	.64**	.71**	.670*	.70**	.74**
10	Optimism	.38**	.53**	.51**	.50**	.48**	.54**
11	PsyCap	.64**	.69**	.79**	.76**	.76**	.82**

Note: ** p< .01

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SRL: Cognitive Engagement-Self-regulated Learning; Acad Eng: Composite Academic Engagement

(b) UG participants

For UG participants, as shown in Table 5.10, a positive and moderate correlation (r =. 66, p < .01) was identified between composite Academic engagement and

composite PsyCap as well as between composite PsyCap and the three dimensions of Academic Engagement and their sub-scales, namely:

- Behavioural Engagement (r = .44, p < .01);
- Affective Engagement (r =. 43, p < .01);
- Cognitive Engagement (r = .66, p < .01);
- Cognitive Engagement - Approaches to Learning (r = .58, p < .01) and;
- Cognitive Engagement - Self-regulated Learning (r =. 61, p < .01).

Despite the moderate correlations identified between the two constructs, a relatively stronger correlation was found between composite PsyCap and Cognitive Engagement and its sub-scales (r between .58 to .66) than its correlation with the dimensions of Behavioural and Affective engagement (r between .43 to .44).

Similarly, significant and positive correlations were also reported between composite Academic Engagement and the four scales of PsyCap, namely:

- Self-efficacy (r = .56, p < .01);
- Hope (r = .70, p < .01);
- Academic Resilience (r = .53, p < .01) and;
- Optimism (r = .41 p < .01).

Amid the four scales, Hope shows a strong correlation (r = .70) with composite Academic Engagement, while moderate correlations were identified between composite Academic Engagement and the other PsyCap components of Self-efficacy, Academic Resilience and Optimism (r from .41 to .56).

Table 5.10

A correlation matrix between Academic Engagement and PsyCap scales for UG participants (n=122)

		1 BE	2 AE	3 CE	4 CE-ATL	5 CE-SRL	6 Acad Eng
7	Self-efficacy	.41**	.31**	.57**	.50**	.54**	.56**
8	Hope	.50**	.54**	.67**	.59**	.62**	.70**
9	Academic Resilience	.38**	.35**	.52**	.47**	.49**	.53**
10	Optimism	.21*	.23*	.43**	.38**	.40**	.41**
11	PsyCap	.44**	.43**	.66**	.58**	.61**	.66**

Note: ** $p < .01$

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SRL: Cognitive Engagement-Self-regulated Learning; Acad Eng: Composite Academic Engagement

To sum up, the composite constructs of PsyCap and Academic Engagement in UG participants were generally moderately correlated (r between .43 to .66, Table 5.10) and they appeared to be weaker than the correlations found in AD participants (r between .64 to .82, see Table 5.9) and in all participants (r between .55 to .75, see Table 5.8). In response to this observation, a comparison between the correlation coefficients (*r*) of the two constructs was computed: (1) between AD and UG participants, (2) between AD and all participants; and (3) between UG and all participants, to examine if there was a significant difference in the correlation pattern between three groups of participants. Results in Table 5.11 indicate that the correlations found in AD participants were statistically stronger ($p < .05$ in the z-score) than those found in UG participants in most scales of Academic Engagement and PsyCap. However, for the correlations between composite Academic Engagement and Hope / Optimism; and those between composite PsyCap and Affective

Engagement, no significant difference was found (p > .05 in the z-score). The significantly stronger correlations identified in AD participants than UG participants could possibly be related to the significantly higher reported scores of Academic Engagement scales in AD participants as discussed in Section 5.2.2.3.

Table 5.11

Comparing correlations between three groups of participants

	Correlation coefficient (p < .01 **)			z-score (p < .05 *)		
	All	**AD**	**UG**	**AD vs UG**	**AD vs All**	**UG vs All**
Acad Eng & SE	.71**	.79**	.56**	3.55*	-1.79	2.31*
Acad Eng & H	.71**	.73**	.70**	0.50	-0.40	0.18
Acad Eng & RES	.65**	.74**	.53**	2.91*	-1.70	1.68
Acad Eng & OPT	.47**	.54**	.41**	1.36	-0.91	0.68
Acad Eng & PsyCap	.75**	.82**	.66**	2.94*	-1.78	1.63
PsyCap & BE	.55**	.64**	.44**	2.31*	-1.36	1.33
PsyCap & AE	.59**	.69**	.43**	3.14	-1.65	1.98*
PsyCap & CE-ATL	.69**	.76**	.58**	2.70*	-1.44	1.68
PsyCap & CE-SRL	.70**	.76**	.61**	2.32*	-1.25	1.44
PsyCap & CE	.74**	.79**	.66**	2.25*	-1.17	1.43

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SR: Cognitive Engagement-Self-regulated Learning; Acad Eng: Composite Academic Engagement;
SE: Self-efficacy; H: Hope; RES: Academic Resilience; OPT: Optimism;
PsyCap: Composite Psychological Capital

5.3.2.4 Cognitive engagement more strongly correlated with PsyCap

Among the three dimensions of academic engagement, it seems that PsyCap has demonstrated a stronger correlation with Cognitive Engagement (r from .46 to .74) than with Behavioural Engagement (r from .28 to .62) and Affective Engagement (r

from .40 to .59), thus I computed a comparison to examine if there were significant differences between them (Table 5.12).

Table 5.12

Comparing correlations between Academic Engagement and PsyCap scales

Correlations (between scale)	**z-score**	***p* < .05**
BE-PsyCap and CE-PsyCap	-3.84	0.000
AE-PsyCap and CE-PsyCap	-3.15	0.002
BE-Self-efficacy and AE-Self-efficacy	-2.33	0.020
AE-Self-efficacy and CE-Self-efficacy	-3.76	0.000
BE-Hope and CE-Hope	-3.83	0.000
AE-Hope and CE-Hope	-2.37	0.018
BE-Academic Resilience and CE-Academic Resilience	-3.01	0.003
BE-Optimism and CE-Optimism	-2.42	0.015

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement

Results in Table 5.12 show that composite PsyCap and all of its components - Self-efficacy, Hope, Academic Resilience and Optimism - had significantly stronger correlations ($p < .05$) with Cognitive Engagement than with Behavioural Engagement and Affective Engagement (see full results in Appendix O). Such differences could possibly be related to the characteristics of PsyCap and its components, such as Hope and Academic Resilience, which focus on how students employ multiple pathways to overcome obstacles and to persist in their study to pursue their academic goals. These features of PsyCap components share some similarities to the features of Cognitive Engagement, which also involve students' self-regulation and their use of strategies to monitor their progress of study, supporting findings which indicate PsyCap predicted students' pursuit for deep meaning and novelty in knowledge (Lin, 2020).

Finally, Self-efficacy had a significantly stronger correlation ($p < .05$) with Behavioural Engagement than Affective Engagement and this could be related to the tendency for self-efficacious students to achieve academically, which is more likely to be expressed

in the actual behaviours such as active participation in lectures, than the affective aspects of engagement involving feelings and beliefs such as emotional reactions and interest in study.

5.3.2.5 Summary of correlation results

The positive correlations identified between all scales in Academic Engagement and PsyCap scales indicate that participants' Academic Engagement is positively linked with their PsyCap. Participants reporting higher levels of Academic Engagement tend to have higher levels of their Self-efficacy, Hope, Academic Resilience and Optimism that they are likely to employ multiple pathways (Hope) to overcome challenges and difficulties and be able to bounce back from failure (Academic Resilience) to persist in their study. Likewise, the positive correlations found between PsyCap and all dimensions of Academic Engagement suggest that participants with higher levels of PsyCap are likely to be more participative during lectures (Behavioural Engagement), show more interest in their study (Affective Engagement) and invest time to understand the learning materials deeply (Cognitive Engagement). To further investigate those correlations, regression analyses were computed between Academic Engagement and PsyCap, and their results are discussed in the next section.

5.3.3 Simple regression

To further investigate the relationship between Academic Engagement and PsyCap in greater detail, I employed regression analyses to examine if levels of Academic Engagement and PsyCap are predicted by each other. I computed two sets of simple regression analyses to examine whether PsyCap as a composite construct can predict Academic Engagement of participants and vice versa. Given the differences in the reported scores of Academic Engagement scales between AD and UG students (see Section 5.2.2.1), I conducted regression analyses for (1) all participants (2) AD participants and (3) UG participants respectively.

5.3.3.1 Simple regression with PsyCap as the predictor

The first simple regression analysis was conducted to examine if composite Academic Engagement was predicted by composite PsyCap, with results presented in Table 5.13 and Table 5.14 as Models 1 to 3, representing the analyses for all participants, AD participants and UG participants respectively. The two tables are presented in parallel with each other in order to interpret the regression results. Results in Table 5.13 show that composite PsyCap significantly predicts composite Academic Engagement, with R^2 representing how much variance of composite Academic Engagement is predicted by composite PsyCap:

Model 1 (all participants): R^2 of .563, $F(1, 268) = 347.154$, $p < .01$
Model 2 (AD participants): R^2 of .670, $F(1, 146) = 298.923$, $p < .01$;
Model 3 (UG participants) R^2 of .425 $F(1, 120) = 90.310$, $p < .01$.

These results indicate that when PsyCap was investigated in all participants, AD participants and UG participants, it explained 56.3%, .67% and 42.5% of their Academic Engagement respectively. As shown in Table 5.13, PsyCap has a stronger prediction on composite Academic Engagement in AD participants (67%) than UG participants (42.5%) and all participants combined (56.3%), possibly related to the significantly higher scores in Academic Engagement scales reported by AD participants than UG participants (see Section 5.2.2.3).

Table 5.13

A Simple regression model of PsyCap predicting Acad Eng

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.936	1	46.936	347.154	.000
	Residual	36.234	268	.135		
	Total	83.170	269			
	Adjusted R Square of Model 1 = .563					
2	Regression	22.801	1	22.801	298.923	.000
	Residual	11.136	146	.076		
	Total	33.937	147			
	Adjusted R Square of Model 2 = .670					
3	Regression	7.756	1	7.756	90.310	.000
	Residual	10.306	120	.086		
	Total	18.063	121			
	Adjusted R Square of Model 3 = .425					

Note:
Model 1: All participants (N=270)
Model 2: AD participants (n=148)
Model 3: UG participants (n=112)
Dependent variable: Academic Engagement
Predictor: PsyCap

The regression coefficients in Table 5.14 showed that PsyCap positively predicts Academic Engagement in all participants (β = .601, t = 18.632, p < .01), AD participants (β = .658, t = 17.289, p < .01), and UG participants (β = .504, t = 9.503 p < .01). These results indicate that participants who reported higher levels of PsyCap are likely to report higher levels of Academic Engagement too.

Table 5.14

Regression coefficients of a simple regression model with PsyCap predicting Academic Engagement

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.462	.114		12.781	.000
	PsyCap	.601	.032	.751	18.632	.000
2	(Constant)	1.322	.135		9.769	.000
	PsyCap	.658	.038	.820	17.289	.000
3	(Constant)	1.728	.188		9.194	.000
	PsyCap	.504	.053	.655	9.503	.000

Note:
Model 1: All participants (N=270)
Model 2: AD students (n=148)
Model 3: UG students (n=112)
Dependent variable: Academic Engagement
Predictor: PsyCap

A scatterplot reflecting a simple regression model computed for all participants (N=270) is presented visually in Figure 5.1 as an example to illustrate a linear relationship of composite PsyCap explaining 56.3% of the variance in composite Academic Engagement. The scatterplots for AD and UG participants are attached as Appendix P, also revealing a linear relationship between the two constructs.

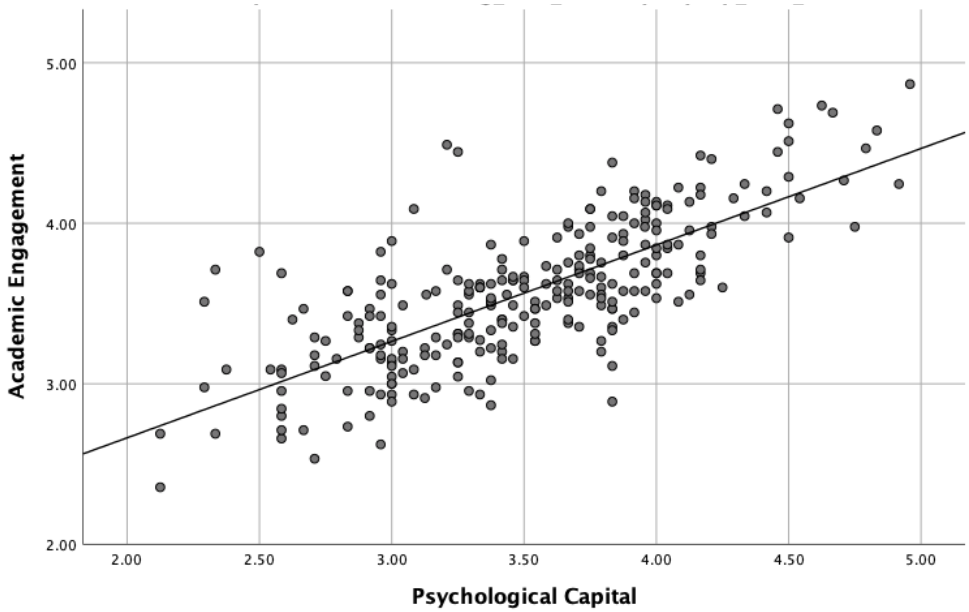


Figure 5.1. A scatterplot of composite PsyCap predicting composite Academic Engagement in all Participants in a simple regression model (R^2= .563, N=270).

5.3.3.2 Simple regression: Academic Engagement as the predictor

The second simple regression analysis was conducted to examine if composite PsyCap was predicted by composite Academic Engagement, the results are presented in Table 5.15 and Table 5.16 as Models 1 to 3, representing the analyses conducted for all participants, AD participants and UG participants respectively. Results in Table 5.15 show that Academic Engagement significantly predicts PsyCap, with R^2 representing how much variance of composite PsyCap is predicted by composite Academic Engagement and the results also reflect a reciprocal relationship between the two constructs, which I will discuss further in the next section.

Model 1 (all participants): R^2 of .563, $F(1, 268) = 347.154$, $p < .01$
Model 2 (AD participants): R^2 of .670, $F(1, 146) = 298.923$, $p < .01$;
Model 3 (UG participants): R^2 of .425 $F(1, 120) = 90.310$, $p < .01$

Table 5.15

Simple regression models of Academic Engagement predicting PsyCap

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.936	1	46.936	347.154	.000
	Residual	36.234	268	.135		
	Total	83.170	269			
	Adjusted R Square of Model 1 = .563					
2	Regression	35.329	1	35.329	298.923	.000
	Residual	17.255	146	.118		
	Total	52.585	147			
	Adjusted R Square of Model 2 = .670					
3	Regression	13.132	1	13.132	90.310	.000
	Residual	17.449	120	.145		
	Total	30.580	121			
	Adjusted R Square of Model 3 = .425					

Note:
Model 1: All participants (N=270)
Model 2: AD students (n=148)
Model 3: UG students (n=122)
Dependent variable: PsyCap
Predictor: Academic Engagement

These results indicate that composite Academic Engagement as a predictor, it has explained 56.3%, 67% and 42.5% of PsyCap in all participants, AD participants and UG participants respectively. Academic Engagement was found to have a stronger prediction to PsyCap in AD participants (67%) than UG participants (42.5%) and also all participants combined (56.3%). The varying strengths of prediction could possibly relate to the higher levels of academic engagement reported in AD participants than UG participants as discussed earlier (see Section 5.2.2.3).

Table 5.16

Regression coefficients of Academic Engagement predicting PsyCap

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.153	.181		.845	.399
	Academic Engagement	.940	.050	.751	18.632	.000
2	(Constant)	-.199	.216		-9.23	.357
	Academic Engagement	1.020	.059	.820	17.289	.000
3	(Constant)	.530	.316		1.679	.096
	Academic Engagement	.853	.090	.655	9.503	.000

Note:
Model 1: All participants (N=270)
Model 2: AD students (n=148)
Model 3: UG students (n=112)
Dependent variable: PsyCap
Predictor: Academic Engagement

Regression coefficients reflected in the results (Table 5.16) shows that Academic Engagement positively predicts PsyCap in all participants ($\beta = .940$, $t = 18.632$, $p < .01$), AD participants ($\beta = 1.020$, $t = 17.289$, $p < .01$) and UG participants ($\beta = .853$, $t = 9.503$, $p < .01$) respectively. These results indicate that participants reporting higher levels of Academic Engagement are expected to report higher levels of PsyCap. A scatterplot of a simple regression model computed for all participants (N=270) is presented visually in Figure 5.2 as an example to illustrate a linear relationship of composite Academic Engagement explaining 56.3% of the variance in composite PsyCap. The scatterplots for AD and UG participants are attached as Appendix P, revealing a linear relationship between the two constructs.

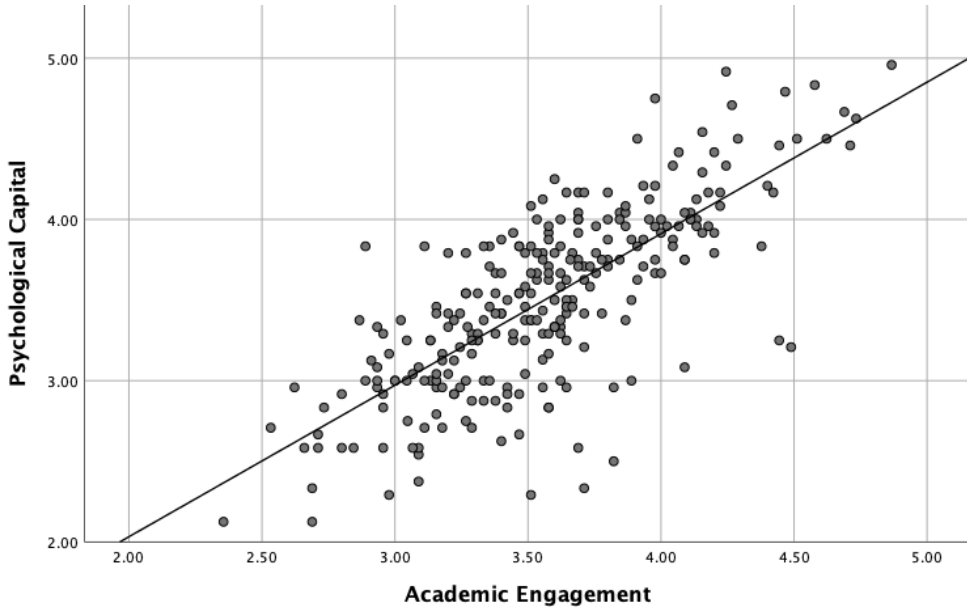


Figure 5.2. A scatterplot of composite Academic Engagement predicting composite PsyCap for all participants in a simple regression model (R^2= .563, N=270).

5.3.3.3 Summary and discussion of the simple regression analyses

Results of the simple regression models show that when PsyCap and Academic Engagement are investigated as composites, they significantly predict each other, indicating a reciprocal relationship between the two constructs. This implies that enhancing either one of them is very likely to promote another, e.g. improving students' PsyCap is likely to promote academic engagement in students and vice versa. These findings also support previous studies which found PsyCap as a predictor of academic engagement in students (Fati et al., 2019; Searle, 2010), particularly those studies which identified a reciprocal relationship between PsyCap and Academic Engagement in university students in Hong Kong (Siu et al., 2014), reinforcing the mutual influence of the two constructs.

5.3.4 Multiple regression analyses

The purpose of a simple regression analysis is focused on examining how one variable, e.g. composite Academic Engagement, is predicted by another variable, i.e. composite PsyCap. To expand the investigation to examine if composite Academic Engagement was predicted by individual PsyCap components (i.e. multiple variables) and whether composite PsyCap was predicted by the individual dimensions of Academic Engagement, a multiple regression is required to enable the examination of how one variable might be predicted by multiple variables. I conducted two sets of multiple regression analyses, with the first one examining PsyCap components as the predictors of Academic Engagement, and the second one involving the dimensions of Academic Engagement as predictors of PsyCap. These analyses of multiple regression were conducted for (1) all participants (2) AD participants and (3) UG participants to examine if there were varying strengths of prediction among the three groups.

5.3.4.1 Academic Engagement as the dependent variable

The first set of multiple regression analyses were conducted to examine if Academic Engagement was predicted by the individual components of PsyCap, including Self-efficacy, Hope, Academic Resilience and Optimism. Results are presented in Table 5.17 and Table 5.18 as Models 1 to 3, representing the analyses conducted for all participants, AD participants and UG participants respectively. It was found that composite Academic Engagement was significantly predicted by PsyCap components, with varying strengths of prediction among the three groups of participants.

Table 5.17

Multiple regression of PsyCap predicting Academic Engagement

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.192	4	8.548	119.402	.000
	Residual	18.972	265	.072		
	Total	53.164	269			
Adjusted R Square of Model 1 = .638						
2	Regression	25.349	4	6.337	105.519	.000
	Residual	8.588	143	.060		
	Total	33.937	147			
Adjusted R Square of Model 2 = .740						
3	Regression	9.558	4	2.389	32.869	.000
	Residual	8.505	117	.073		
	Total	18.063	121			
Adjusted R Square of Model 3 = .513						

Model 1: All participants N = 270
Model 2: AD students (n = 148)
Model 3: UG students (n = 122)
Dependent variable: Academic Engagement
Predictors: Self-efficacy, Hope, Academic Resilience and Optimism

The results in Table 5.17 reveal that the individual PsyCap components significantly predict Academic Engagement of all three groups of participants:

Model 1 (all participants): R^2 of .638, $F(4, 265) = 119.402$, $p < .01$

Model 2 (AD participants): R^2 of .740, $F(4, 143) = 105.519$, $p < .01$

Model 3 (UG participants): R^2 of .513, $F(4, 117) = 32.869$, $p < .01$

These results indicate that 63.8%, 74% and 51.3% of Academic Engagement was explained by PsyCap components when all participants, AD participants and UG participants were analysed respectively. The regression coefficients shown in Table 5.18 indicate the individual contribution of the respective predictors of the three

groups of students. Model 1 (all participants) indicates that Self-efficacy (β = .407, t = 8.594, p < .01), Hope (β = .383, t = 6.527, p < .01) and Academic Resilience (β = .180, t = 2.979, p < .01) were all significant predictors of Academic Engagement and they collectively explained 63.8% of composite Academic Engagement when all participants were analysed. When only AD participants were analysed, as indicated in Model 2, the components of Self-efficacy (β = .477, t = 8.299, p < .01), Hope (β = .257, t = 3.781, p < .01) and Academic Resilience (β = .247, t = 3.322, p < .01) were also identified to be significant predictors of Academic Engagement and they collectively explained 74% of Academic Engagement in AD participants. Lastly, Model 3 indicates that only Self-efficacy (β = .259, t = 3.262, p < .01) and Hope (β = .591, t = 5.854, p < .01) were significant predictors of Academic Engagement and they explained 51.3% of Academic Engagement in UG participants. As for Optimism, it was not a significant predictor of Academic Engagement (p > .05) for all three groups of participants. Also, when only the reported scores of UG participants were analysed, neither Academic Resilience nor Optimism was a significant predictor of Academic Engagement (p > .05). These results suggest that Academic Engagement of participants can be greatly enhanced when their Self-efficacy, Hope and Academic Resilience are being promoted collectively, but Optimism.

Table 5.18

Regression coefficients of a multipe regression model with PsyCap predicting Academic Engagement

	Variable	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	**Std. Error**	**Beta (β)**		
1	(Constant)	1.336	.109		12.260	.000
	Self-efficacy	.285	.033	.407	8.594	.000
	Hope	.240	.037	.383	6.527	.000
	Academic Resilience	.132	.044	.180	2.979	.003
	Optimism	-.044	.033	-.070	-1.341	.181
	Adjusted R Square of Model 1 = .638					
2	(Constant)	1.112	.128		8.658	.000
	Self-efficacy	.344	.041	.477	8.299	.000
	Hope	.157	.042	.257	3.781	.000
	Academic Resilience	.187	.056	.247	3.322	.001
	Optimism	.001	.042	.001	.022	.982
	Adjusted R Square of Model 2 = .740					
3	(Constant)	1.668	.177		9.409	.000
	Self-efficacy	.170	.052	.259	3.262	.000
	Hope	.376	.064	.591	5.854	.000
	Academic Resilience	.023	.066	.033	.339	.735
	Optimism	-.064	.051	-.107	-1.248	.215
	Adjusted R Square of Model 3 = .513					

Model 1: All participants (N = 270)
Model 2: AD students (n = 148)
Model 3: UG students (n = 122)
Dependent variable: Academic Engagement
Predictors: Self-efficacy, Hope, Academic Resilience and Optimism

A scatterplot of the multiple regression model computed for all participants is presented visually in Figure 5.3 as an example to illustrate a linear relationship indicating how Self-efficacy, Hope and Academic Resilience have collectively explained 63.8% of composite Academic Engagement. The scatterplots for AD and UG participants are attached as Appendix Q, which also reveal a linear relationship between the PsyCap components and composite Academic Engagement.

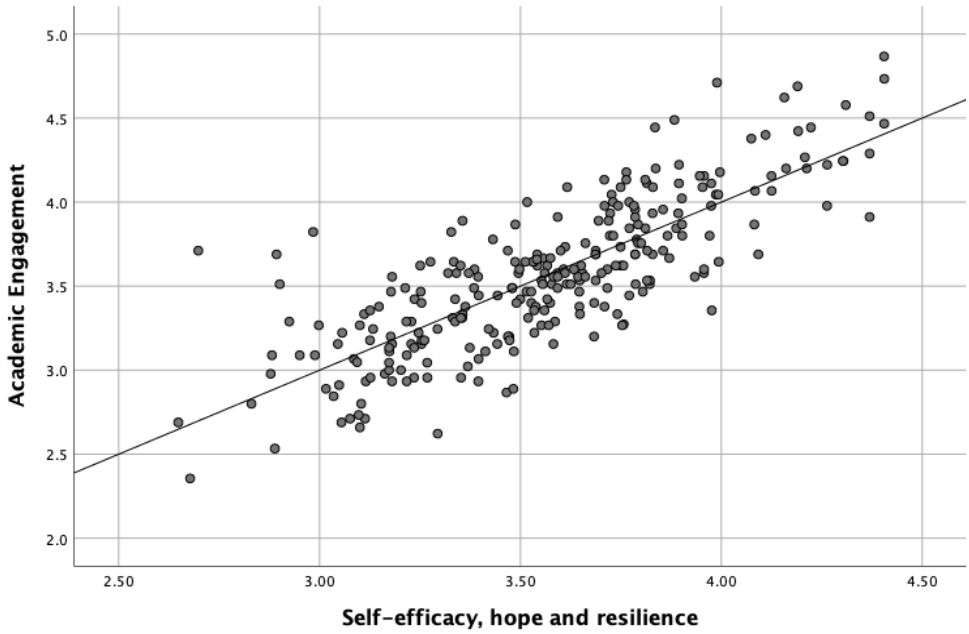


Figure 5.3. A scatterplot reflecting how self-efficacy, hope and academic resilience predicted Academic Engagement in all participants in a multiple regression model (R^2 = .638, N = 270).

5.3.4.2 PsyCap as the dependent variable

Another set of multiple linear regression analyses were computed to examine if composite PsyCap was predicted by the three dimensions of Academic Engagement. Results show that composite PsyCap was significantly predicted by the dimensions of Affective and Cognitive Engagement among all three groups of participants, presented as Models 1 to 3 in Table 5.19 and Table 5.20.

Table 5.19

Multiple regression of Academic Engagement predicting PsyCap

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.022	4	11.756	86.181	.000
	Residual	36.147	265	.136		
	Total	83.170	269			
	Adjusted R Square of Model 1 = .559					
2	Regression	35.538	4	8.887	74.593	.000
	Residual	17.037	143	.119		
	Total	52.585	147			
	Adjusted R Square of Model 2 = .667					
3	Regression	13.413	4	3.353	22.721	.000
	Residual	17.119	116	.148		
	Total	30.532	120			
	Adjusted R Square of Model 3 = .420					

Model 1: All participants (N=270)
Model 2: AD students (n=148)
Model 3: UG students (n=122)
Dependent Variable: PsyCap
Predictors: Behavioural Engagement; Affective Engagement;
Cognitive Engagement - Approaches to Learning and
Cognitive Engagement - Self-regulated Learning

The results in Table 5.19 reveal that the dimensions of Affective and Cognitive Engagement significantly predict PsyCap of all three groups of participants:

Model 1 (all participants): R^2 of .559, $F(4, 265) = 86.181$, $p < .01$

Model 2 (AD participants): R^2 of .667, $F(4, 143) = 74.593$, $p < .01$

Model 3 (UG participants): R^2 of .420, $F(4, 117) = 22.721$, $p < .01$

These findings indicate that 55.9%, 66.7% and 42%of composite PsyCap was explained by the dimensions of Affective and Cognitive Engagement when all participants, AD participants and UG participants were analysed respectively. In all three models, the dimension of Behavioural Engagement was not a significant predictor of PsyCap ($p > .05$).

The individual contribution of the respective predictors is presented in Table 5.20, with Model 1 (all participants) indicates that Affective Engagement (β = .154, t = 2.648, p < .01) as well as Cognitive Engagement sub-scales reflecting a deep approach to learning (β = .267, t = 3.822, p < .01) and self-regulation (β = .347, t = 5.288, p < .01) were all significant predictors of Academic Engagement that they collectively explained 55.9% of PsyCap when all participants were analysed. When only AD participants were analysed, Model 2 indicates that Affective Engagement (β = .241, t = 3.204, p < .05) and self-regulated learning in Cognitive Engagement (β = .375, t = 4.239, p < .01) were both significant predictors of Academic Engagement and they collectively explained 66.7% of PsyCap in AD students. Lastly, for UG participants, Model 3 indicate that only Cognitive Engagement and its sub-scales reflecting a deep approach to learning (β = .267, t = 2.701, p < .01) and self-regulated learning (β = .372, t = 3.803, p < .01) were both significant predictors of Academic Engagement and they collectively explained 42% of PsyCap in UG participants. These results suggest that composite PsyCap of participants can be enhanced if their dimensions of Affective and Cognitive Engagement are being fostered.

Table 5.20

Regression coefficients of multipe regressoin model with Academic Engagement predicting PsyCap

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.181	.188		.977	.329
	BE	.090	.057	.088	1.584	.114
	AE	.134	.051	.154	2.648	.009
	CE-ATL	.312	.082	.267	3.822	.000
	CE-SR	.399	.075	.347	5.288	.000
2	(Constant)	-.178	.233		-.762	.447
	BE	.139	.077	.125	1.818	.071
	AE	.208	.065	.241	3.204	.002
	CE-ATL	.225	.119	.190	1.895	.060
	CE-SRL	.436	.103	.375	4.239	.000
3	(Constant)	.527	.321		1.644	.103
	BE	.107	.086	.110	1.252	.213
	AE	.015	.081	.017	.189	.851
	CE-ATL	.306	.113	.267	2.701	.008
	CE-SR	.434	.114	.372	3.803	.000

Model 1: All participants (N=270)
Model 2: AD students (n=148)
Model 3: UG students (n=122)
Dependent Variable: PsyCap
Predictors: BE: Behavioural Engagement, AE: Affective Engagement,
CE-ATL: Cognitive Engagement - Approaches to Learning
CE-SRL: Cognitive Engagement - Self-regulated Learning

A scatterplot of the multiple regression model computed for all participants is presented visually in Figure 5.4 as an example to illustrate a linear relationship indicating how the dimensions of Affective and Cognitive Engagement have collectively explained 55.9% of composite PsyCap. The scatterplots reflecting the relationship between the dimensions of Affective and Cognitive Engagement and composite PsyCap for AD and UG participants are attached in Appendix Q.

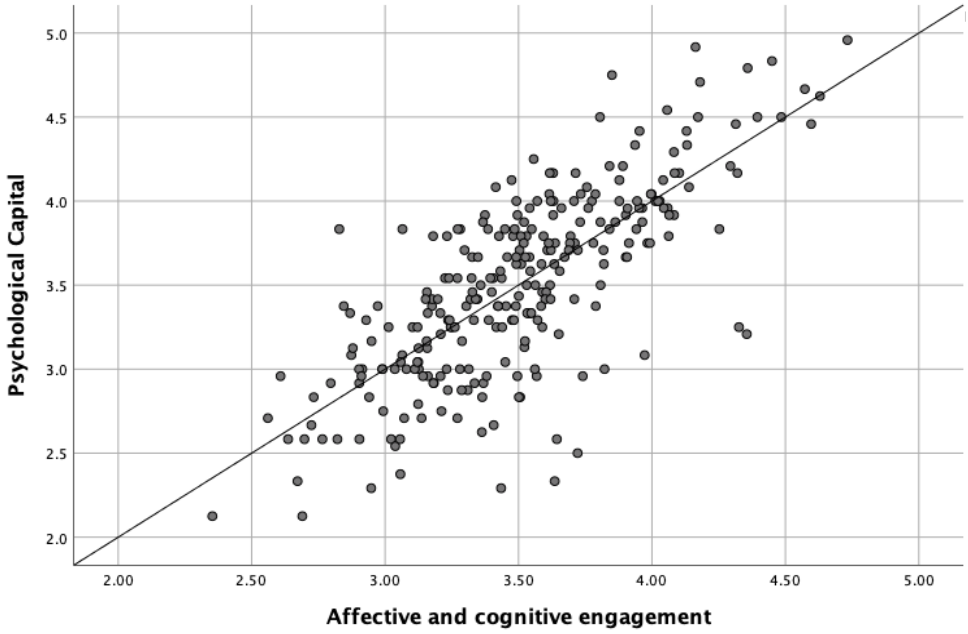


Figure 5.4. A scatterplot reflecting how affective and cognitive engagement predicted PsyCap in all participants in a multiple regression model (R^2 = .559, N = 270).

5.3.5 Discussion of multiple regression models

Results of multiple regression analyses (see Sections 5.3.4.1 and 5.3.4.2) indicate that specific PsyCap components are found to predict composite Academic Engagement, while some individual dimensions of Academic Engagement are found to predict composite PsyCap. I will illustrate these findings with reference to studies from the literature.

5.3.5.1 PsyCap predicting Academic Engagement

Results of multiple regression analyses shown in Section 5.3.4.1 indicate that PsyCap components of Self-efficacy, Hope and Academic Resilience collectively predict composite Academic Engagement of participants. Contrary to findings which suggested that PsyCap as a composite construct had a stronger predictive power (Luthans, Avolio, et al., 2007) than having its components being investigated individually, in the present study, PsyCap as a composite construct for all three groups of participants is found to explain a smaller portion of variance of Academic Engagement (ranging from 42.5% to 67%) than the concerted influence of the three components of Self-efficacy, Hope and Academic Resilience (ranging from 51.3% to 74%). The weaker predictive power of composite PsyCap than the combination of its three components can possibly be attributed to the non-significant role of Optimism ($p > .05$, see Section 5.3.4.1) in predicting Academic Engagement. This finding is also in line with a previous study, which revealed that Optimism did not predict academic performance in university students when it was being investigated together with Self-efficacy and Hope (Feldman & Kubota, 2015). It requires more investigation to understand the reasons why Optimism did not predict academic outcomes like academic engagement and academic performance when it was being examined in combination with other PsyCap components.

In the present study, the reported mean score of Optimism was lower (3.28) than that of Self-efficacy, Hope and Academic Resilience for all participants, ranging from 3.43 to 3.77 (See Table 5.6). The lower levels of Optimism may be related to the characteristics of the participants in the present study, who were academically less competent being Associate Degree or Top-up Undergraduate Degree students (see Section 1.4.1 relating to context of the present study). They were likely to have experienced more academic failures in their path of study either from the high-stake

public examinations (e.g. not meeting the university entry requirements) and/or from the two-year Associate Degree study (e.g. not achieving competitive academic results for government-funded institutions). Optimism is characterised by a positive outcome expectancy and it was measured by items in the survey, such as "When things are uncertain for me at study, I usually expect the best", with a high reported score representing a greater expectancy of positive outcomes in study. However, participants in the present study have possibly experienced more academic failures in terms of unsatisfactory academic results and consequently may have a lower expectancy of positive outcomes, resulting from their previous academic encounters. To conclude, despite the lesser role of Optimism in predicting Academic Engagement, composite PsyCap and most of its components (i.e. Self-efficacy, Hope and Academic Resilience) were reported as significant predictors of Academic Engagement. Thus, strengthening PsyCap, particularly Self-efficacy, Hope and Academic Resilience, can possibly foster academic engagement and that PsyCap can be effectively enhanced by specific training in university students (Dello Russo & Stoykova, 2015; Ertosun et al., 2015; Luthans et al., 2010, 2014), offering a possible strategy to promote students' academic engagement.

5.3.5.2 Academic Engagement predicting PsyCap

As presented in Section 5.3.4.2, the dimensions of Affective Engagement and the scales of Cognitive Engagement reflecting a deep approach to learning and self-regulated learning were found to predict composite PsyCap in all participants (see Table 5.19 and Table 5.20.

Table 5.19 and Table 5.20). When the analysis was focused on AD participants only, PsyCap was still predicted by Affective Engagement yet only the self-regulation aspect of Cognitive Engagement, but not the deep approach to learning. This difference might be attributed to AD participants' determination to achieve

outstanding academic performance in order to get a university place for further study, so that they might employ more self-regulatory strategies to monitor their progress of study. Lastly, composite PsyCap for UG participants was only predicted by the dimension of Cognitive Engagement, involving both scales of reflecting a deep approach to learning and self-regulated learning, but not by Affective Engagement. The lesser contribution of Affective Engagement to PsyCap in UG participants can be related to various contextual influences and more in-depth studies are needed to unpack this finding.

Among the multiple regression models analysing the relationship between PsyCap and Academic Engagement, results of the UG participants reflect the weakest prediction power than the AD participants and all participants combined, no matter when PsyCap components or dimensions of Academic Engagement acted as the predictor. Such differences are probably related to the higher levels of composite Academic Engagement reported in AD participants (*Mean* = 3.63) than UG participants (*Mean* = 3.50), see Section 5.2.2.3 and Table 5.4 for detail, perhaps related to the different academic goals from the two groups of students and thus their varying effort invested in study. For AD participants, they need to achieve outstanding academic results in order to get a place in an undergraduate degree programme after completing AD, very likely becoming as a motivation for them to invest more effort in their study to perform well. The variations in effort was also reflected in higher levels of the self-regulation aspects of Cognitive Engagement reported in AD participants (*Mean* = 3.52) than UG participants (*Mean* = 3.38), indicating an ability to employ a range of strategies to monitor their progress of study and to persist in their study despite difficulties.

5.4 Summary and implications of findings

Findings from the survey contribute to the current literature by investigating Academic engagement and PsyCap in higher education students in Hong Kong in the following ways. The survey findings expand the investigation of Academic Engagement and PsyCap by examining their individual dimensions, adding more details to the previous studies which have primarily focused on Academic Engagement and PsyCap as composite constructs when reporting the positive relationship between them (Fati et al., 2019; Luthans et al., 2016; Martínez et al., 2019; Siu et al., 2014). The positive correlations identified between the composite Academic Engagement and PsyCap as well as between their individual dimensions indicate that participants with higher levels of PsyCap (expressed in Self-efficacy, Hope, Academic Resilience and Optimism) tend to expend more effort in their study in terms of Behavioural, Affective and Cognitive dimensions.

The positive correlations identified between the two constructs have implications for the higher education setting in the following two ways. First, given that both Academic Engagement and PsyCap are positively associated with better academic performance (Heikkilä et al., 2012; Kuh et al., 2008; Luthans et al., 2012; Salamonson et al., 2009; Schlenker et al., 2013; Siu et al., 2014; Taasoobshirazi et al., 2016; Yoon et al., 2015) and they are reciprocally predictive of each other, thus, it is hypothesised that promoting either of them might associate with changes in another, further research is required to explore how such reciprocal relationship between the two constructs could suggest possible ways for educators to promote students' academic performance. Second, the influential role of the individual components of PsyCap in promoting academic engagement suggest that enhancing PsyCap of students can be an effective way to promote academic engagement and subsequently their academic performance. Perhaps elements of PsyCap can be incorporated into the curriculum in higher education in such ways to foster students' psychological resources,

particularly those who are academically less prepared, as they were found to benefit more from engaging in their study (Pascarella & Terenzini, 2005) and need more support from the institution. Luthans et al. (2014) suggested it was beneficial for students to develop their PsyCap continuously, in order to create a lasting effect to overcome challenges in their academic path.

Third, results from the present study examined all three dimensions of Behavioural, Affective and Cognitive Engagement, which are under-examined in the engagement literature in a single study (Fredricks et al., 2005), especially in higher education, adding empirical evidence to the use of tripartite model in measuring multiple dimensions of academic engagement.

Another prominent finding from the survey is revealing the role of the less-researched Affective Engagement, reflected in its positive correlations with composite PsyCap and its components (discussed in 5.3.2.2). From the regression analyses, Affective Engagement was also found to be a significant predictor of PsyCap in conjunction with Cognitive Engagement (discussed in 5.3.5.2), suggesting its important role in student learning. The process of how Affective Engagement is experienced and perceived by students will be reported in further detail in the coming chapters (6 to 9), as I present findings of the semi-structured interviews.

To conclude, results from the survey address the RQ1 concerning the relationship between self-reported academic engagement and PsyCap in higher education students in Hong Kong, indicating a positive correlation between students' reported levels of academic engagement and PsyCap. A further investigation of the individual dimensions of the two constructs also reveals a reciprocal relationship between PsyCap and Academic Engagement. Both composites of PsyCap and its components were found to be significant predictors of participants' Academic Engagement. At the same time, Academic Engagement, when being examined as a composite

construct and as individual dimensions, also predicted PsyCap of participants. These findings contribute to the current literature by adding fuller understanding of the relationship between the individual dimensions of Academic Engagement and PsyCap. In terms of educational practices, the significant role of PsyCap in predicting Academic Engagement suggests that it might be helpful to embed the PsyCap components of Self-efficacy, Hope and Academic Resilience in the teaching and learning environment, for instance, self-efficacy can be promoted through peer learning during which students may benefit from observation modeling (Bandura, 2008). Results from the survey indicate that promoting either Academic Engagement or PsyCap could help enhance the levels of the other, however, survey results alone are not sufficient to understand how Academic Engagement and PsyCap can be influenced by other factors as students interact with the contexts they are situated in. In the next four chapters, I will report how students experience and perceive their academic engagement in greater depth, in light of the influence of PsyCap and other affective elements of learning, addressing the second and third research questions.

Chapter 6

Interview Findings and Theme One

6.1 Overview of the interview findings

In the previous chapter, I presented and discussed the findings from the survey, which identified a positive and reciprocal relationship between students' self-reported academic engagement and their PsyCap. This relationship addressed the first research question, which aimed to investigate the pattern of relationship between self-reported academic engagement and PsyCap of higher education students in Hong Kong. To address the second and third research questions (listed below), 20 semi-structured interviews were conducted to explore students' experiences of academic engagement (RQ2), and the manifestation of the affective dimension of learning in their engagement (RQ3). I will present the interview findings in four respective themes in the next four chapters (6 to 9), supported by quotes from respondents, with reference to the literature.

> **Research Question 2 (RQ2):**
> **How do higher education students in Hong Kong experience and perceive their academic engagement?**
>
> **Research Question 3 (RQ3):**
> **How do higher education students in Hong Kong experience and perceive the affective dimension of learning in their academic engagement?**

In the data collection process, an interview guide was used to conduct the semi-structured interviews that each respondent was asked four core questions summarised below, asking them to recall instances of academic engagement (see full interview guide in Appendix F). After respondents answered each question, I asked some probing questions to elicit further responses, such as descriptions in detail of the specific scenarios and respondents' perception of those experiences.

- *Question 1: Can you recall and describe a moment when you found yourself really involved in learning during your study?*
- *Question 2: Can you recall and describe a moment when you found yourself detaching from learning during your study?*
- *Question 3: Regarding the two scenarios you have just described, one of which you were really involved in the learning while in another you found yourself detached from learning, what were the factors influencing them?*
- *Question 4: What helped you persist in your study when you faced setbacks and challenges?*

6.2 Presentation of the findings

The data analysis (see Section 4.5.5) involved transcription and coding process that I used thematic analysis (Braun & Clarke, 2006, 2012, 2013, 2014; Clarke & Braun, 2017) to identify, analyse and report patterns of the instances capturing experiences of academic engagement. Profiles of the 20 respondents, represented by the pseudonyms, are summarised in Table 6.1. All respondents were students from Harmony University who were registered in Associate Degree (AD) or the Top-up Undergraduate (UG) Degree programmes across various disciplines of studies. Among the 20 respondents, 7 of them were male and 13 were female, with an age range from 18 to 23 (average 20.4). Other particulars of the respondents, including their programmes of study and cumulated Grade Point Average (cGPA) are also summarised in the Table 6.1. The cGPA is an indicator used to reflect the academic performance of higher education students in Hong Kong across institutions, with 4.0 being the highest grade representing students achieving an "A" for all modules, which rarely happens. For most institutions including Harmony University, a cGPA of 3.0 and above is considered as a satisfactory result, while 3.50 is regarded as excellent achievement. The reason to include cGPA in the summary table is to provide an overview of the academic performance of the 20 respondents, who

reported a cGPA ranging from 1.50 to 3.73, thus the interview findings represent academic engagement experience from students with mixed academic abilities.

Table 6.1

Summary of profiles of 20 respondents from the interviews

	Name	Gender	Age	Programme of study	Year of study	cGPA
1	Alex	M	20	Geography and Resources Management	AD1	1.50
2	Amy	F	18	Cultural Studies	AD1	3.20
3	Bella	F	19	Creative Communication	AD2	3.52
4	Clara	F	20	Journalism	AD2	3.67
5	Billy	M	20	Psychology	AD2	2.80
6	Calvin	M	22	Human Resources Management	UG4	2.90
7	David	M	20	Creative Communication	AD2	3.40
8	Daisy	F	21	Creative Communication	AD2	3.25
9	Eddie	M	21	Music	AD2	2.35
10	Emma	F	20	Media Communication	AD2	3.73
11	Faye	F	20	Creative Communication	AD2	3.73
12	Frank	M	23	History and Hong Kong Studies	AD2	3.30
13	Gloria	F	19	Journalism	AD2	3.71
14	Heather	F	22	Creative Writing for Film, Television and New Media	UG3	2.81
15	Ivana	F	21	Environment and Resources Management	UG4	3.50
16	George	M	22	Environment and Resources Management	UG4	3.26
17	Jenny	F	22	Liberal and Cultural Studies	UG3	2.60
18	Kelly	F	19	Applied Social Service	AD1	2.76
19	Lucy	F	18	Environmental Conservation Studies	AD1	3.73
20	Melissa	F	21	Creative Communication	AD2	3.15

Note:
AD1 & AD2 – Year 1 and Year 2 of Associate Degree
UG3 & UG4 – Year 3 and Year 4 of Top-up Undergraduate Degree (Beginning from Year 3)
cGPA – Cumulated Grade Point Average, reflecting academic achievement, full mark is 4.0

6.2.1 Themes identified from the interviews

As respondents recalled their experiences of academic engagement, some aspects of the affective dimension of learning were embedded in those experiences, thus, the findings of the second and third research questions are addressed in conjunction with each other. From the coding process, I identified four themes capturing respondents' experiences of academic engagement and affective elements related to learning. A thematic map is presented in Figure 6.1 to give a brief summary of the four themes emerging from the interview data and I will discuss each theme with reference to the quotes from respondents in Chapters 7 to 9. In this chapter, I will present and discuss Theme One, capturing respondents' interactions with their lecturers and peers, focusing on the detail and quality of those interactions as well as their influences on academic engagement. For the remaining three themes, I will present them in Chapters 7 to 9.

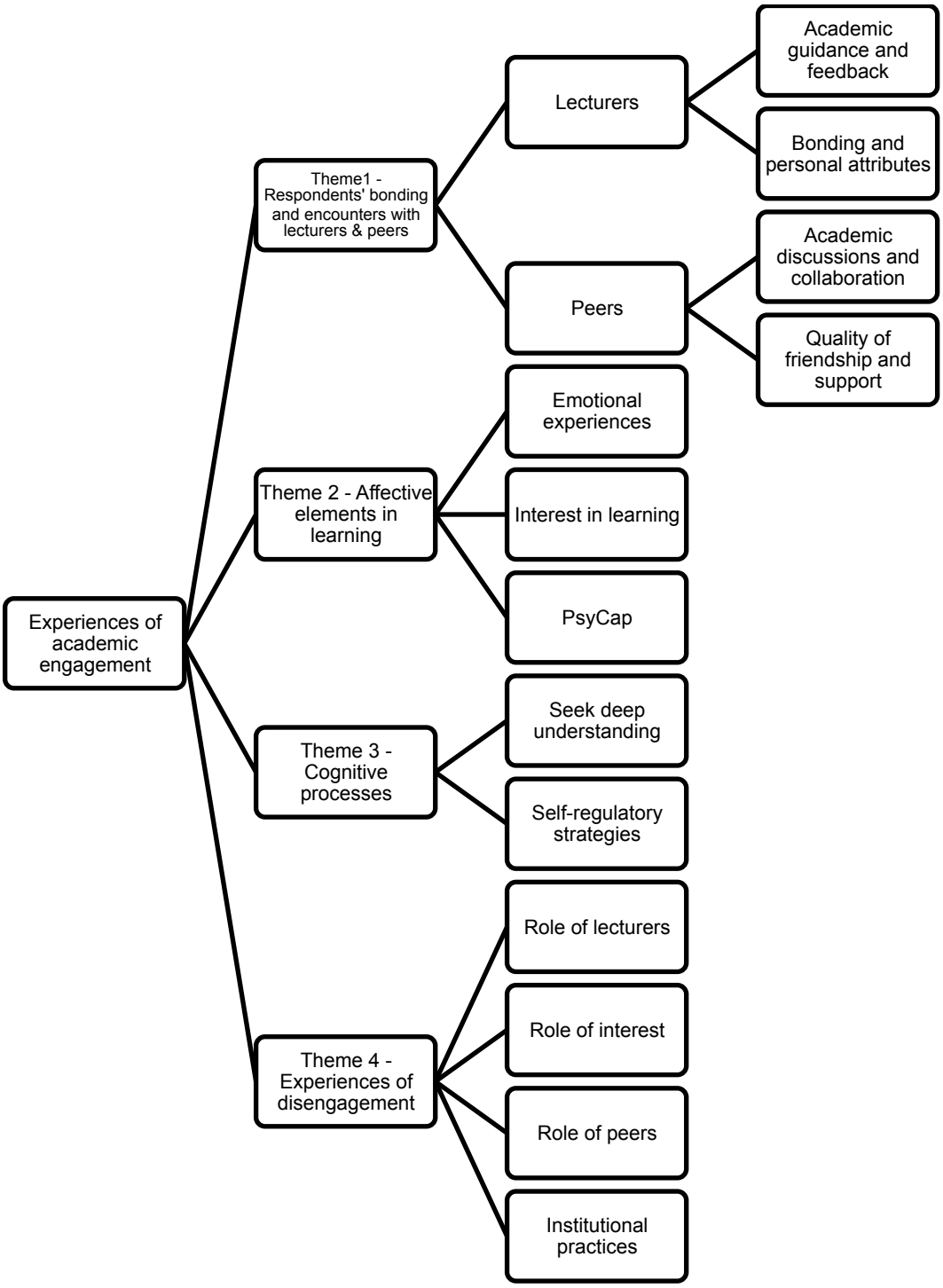


Figure 6.1. A thematic map representing experiences of academic engagement.

Theme One: Respondents' bonding and encounters with lecturers and peers

The first theme captures respondents' interactions with their lecturers and peers, involving the academic discussions between the parties, which benefitted respondents' cognitive understanding of the subject matter. Respondents also recalled their bonds with lecturers and peers as a factor promoting their academic engagement.

Theme Two: The affective elements associated with academic engagement

The second theme encapsulates the affective elements of learning embedded in respondents' experiences of engagement, involving their emotional experiences, interest in learning and their psychological resources (theorised as PsyCap). This theme is closely linked with the first theme that both themes involve part of the components contributing to the integrative framework of affective dimension of learning (See Figure 3.1). The first theme is primarily focused on the interactions between respondents and their lecturers and peers, while the second theme illustrates the role of other affective elements reflected in respondents' recollections.

Theme Three: Cognitive processes of academic engagement

The third theme involves cognitive processes of academic engagement, represented as respondents' intention to achieve a deep cognitive understanding and their effort to manage and regulate their study. Those cognitive processes, despite being less observable, were reflected in respondents' recollections as they recalled the use of various cognitive strategies and self-regulating strategies to mange their studies.

Theme Four: Respondents' experiences of disengagement from their study

This last theme describes instances concerning respondents' experiences of disengagement from their study, representing the other side on the continuum of academic engagement. Respondents' disengagement experiences involve such behaviours as drifting their attention away from lectures, losing their interest and motivation in their study as well as an unwillingness to invest time and effort in the subject matter.

6.2.2 Themes are inter-related to each other

Before I move on to present and discuss the individual themes, I will briefly illustrate how the themes are inter-related to each other, yet each of them reflects some distinctive aspects of engagement experiences. For instance, Theme One focuses on the quality of bonding and encounters between respondents and their lecturers and peers, involving rich details, such as what have the lecturers done, who initiated the interactions and how did respondents perceive the impact of those interactions. Nevertheless, respondents also briefly talked about how they have deepened understanding of the subject (Theme Three), resulting from the inspiration from their encounters with lecturers. However, the third theme emphasises respondents' cognitive processes, i.e. their intention and strategy use to seek in-depth understanding of subject knowledge, instead of detail of lecturers' interactions. Similarly, some affective elements of learning (Theme Two) are reported across other themes, such as positive emotional experiences are frequently associated with in-depth knowledge acquisition (Theme Three) and interactions with lecturers and peers (Theme One), while psychological resources (Theme Two) are also reported as respondents recalled their self-regulated strategy use (Theme Three). The analysis of respondents' emotional experiences and psychological resources are presented in Theme Two, while they are also reflected in the engagement experiences captured by

other themes. Indeed, overlaps in the four themes reflect the inter-relatedness between different aspects of academic engagement, while each theme captures a distinctive aspect of students' engagement study, supporting the complexity of academic engagement and the need to investigate it holistically.

6.3 Theme One: Respondents' bonding and encounters with lecturers and peers

Theme One captures respondents' interactions with their lecturers and peers when they recalled instances of academic engagement. This theme is organised into two sub-themes, with the first sub-theme focusing on respondents' interactions with their ***lecturers,*** and the second involving their interactions with their ***peers.*** In each sub-theme, the interactions between respondents and their lecturers or peers are broadly classified into academic discussion and the quality of the relationship (see Figure 6.2).

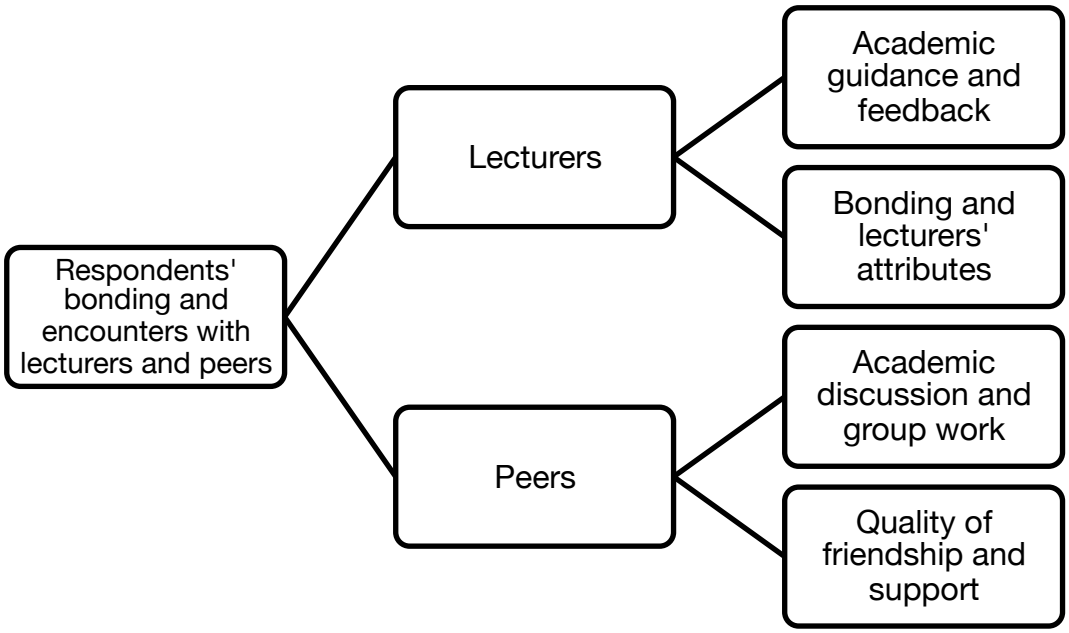


Figure 6.2. Theme One and its sub-themes capturing respondents' interactions with lecturers and peers.

Respondents' interactions with their lecturers and peers serve as one of the components contributing to the integrative framework of the affective dimension of learning (Figure 6.3), encapsulating various affective elements associated with respondents' recollections of academic engagement. Therefore, unpacking Theme One would provide detail of how some affective elements are manifested in students' experience of academic engagement.

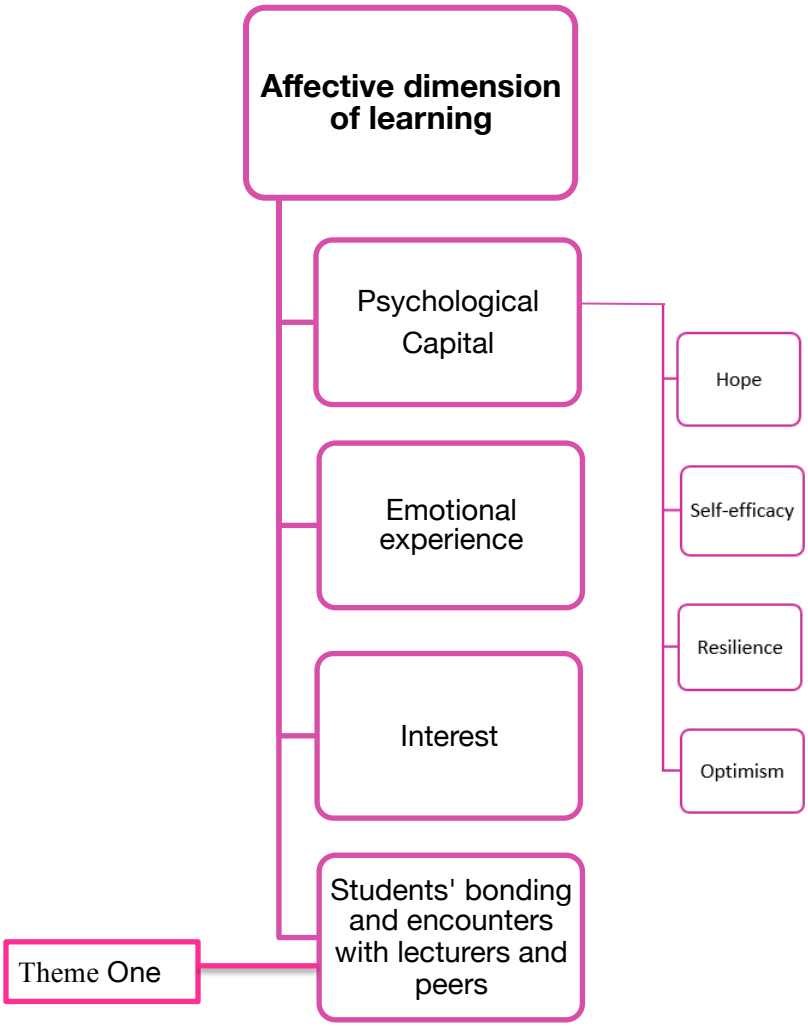


Figure 6.3. Theme One in relation to the integrative framework of the affective dimension of learning.

6.3.1 Academic guidance and feedback from lecturers

Despite the recognised influence of lecturers on students' academic engagement, not much was known about the quality of those interactions (Farr-wharton et al., 2018;

Hagenauer & Volet, 2014; Kuh & Hu, 2001; Schutz, Hong, Cross, & Osbon, 2006), particularly how students perceive the influence of those interactions on their studies. This sub-theme offers detail concerning the quality of those lecturer-student interactions as 15 respondents out of 20 reported how they benefitted from those academic encounters. From their encounters with lecturers, respondents reported an enhanced understanding of the subject matter, including better clarity of thoughts, more thorough comprehension of the course materials and experience of perspective shift to interpret academic and life issues in their study.

6.3.1.1 Academic discussion with and guidance from lecturers

Most respondents recalled having academic discussion with their lecturers beyond class was enlightening, such as Bella, who reported the discussion was helpful to clarify her misinterpretations of the course materials.

> "I tried to express my understanding of the concepts to my lecturer in my own words, then I realised that I had actually missed some parts of the concept and they affected my understanding as a whole."
> *(Bella, female, 19 years old, Year 2 AD student of Creative Communication)*

Clara also talked about how she gained another perspective to interpret the course materials after having an in-depth discussion with her lecturer and fellow classmate on a particular theory. She reported reaching out to her lecturer with the aim to clarify her confusion about a theory when she noticed there was "a bug" (like a flaw) in it, yet she was unable to unpack and make sense of that "bug" in relation to the theory even after discussing with her peers.

> "At the beginning, my lecturer could not really give us an answer, rather, after quite some discussion when three of us (Clara, her lecturer and fellow classmate) asked each other questions and tried to express our thoughts to each other, then we came up with some other interpretations".
> *(Clara, female, 20 years old, Year 2 AD student of Journalism)*

She said that at the end of the discussion, despite they were not able to find an answer to explain the initial "bug issue" in the theory concerned, they came up with a new perspective that there were some limitations in theories and she found the process "very fruitful [because] I really learned something". In this scenario, Clara reflected a perspective shift that she acknowledged the existence of some limitations in theories, augmenting to the initial thought of being able to recognise some flaws ("a bug") in the theory concerned. In addition, Clara also acknowledged the collective effort between her lecturer, fellow classmate and herself, who worked together to contribute to deepen their understanding of the theory concerned and her subsequent perspective shift, resulting from the discussion.

Clara's perspective shift was also reflected in Gloria's academic discussion with her lecturer on a philosophy module of "Ethical Challenges". Gloria talked about how her lecturer has inspired her thoughts and reflections on her existing beliefs and assumptions about life issues. She described the discussion was a "shock" to her, however, in a pleasant way.

> "Before the discussion, I used to think that everyone shares some similar ethical values to guide our decision-making in daily life, not until I had that particular discussion with my lecturer, which was really a shock to me."
> (*Gloria, female, 19 years old, Year 2 AD student of Journalism)*

Gloria recalled that her lecturer challenged her existing belief regarding "the prominence of family relationships" by asking her questions and giving her scenarios to reflect on. Gloria reported how she was challenged by her lecturer to interpret her views from another perspective as she tried to justify her decision-making regarding her willingness to make individual sacrifice for the happiness and security of her family members. She regarded the challenging questions from her lecturer have inspired her to reflect on her existing thoughts on the universality of some ethical values and principles guiding people's decision-making process. She

also perceived the academic discussion as inspiring and enjoyable that she liked how she could express her views and disagree her lecturer's opinions as long as she could justify her views.

> "He has inspired me [to rethink] that perhaps things in life are not as absolute as I assumed, that (challenge) was helpful for me to take different perspectives to interpret other social issues."
> (*Gloria)*

The experiences of Bella, Clara and Gloria reveal that the academic discussion between students and lecturers serve as a vehicle to promote thorough comprehension and in-depth exploration of the subject matter, during which respondents could raise their questions, listen to others' views and articulate their ideas to each other. Respondents regarded their lecturers as having inspired them to think beyond their existing patterns of thoughts and promoted a perspective shift like those reported by Clara and Gloria. Their experiences shed light on the processes of lecturer-student interactions that it appears to be a partnership between lecturers and students in promoting students' engagement in study, when both parties are engaged in academic discussion heading to in-depth understanding of the subject matter. Lecturers play a role to stimulate students to pursue in-depth thinking in such ways as asking thought-provoking questions to illicit deeper thoughts from students, while students have also reflected an eagerness to acquire further knowledge in that partnership. For instance, Gloria demonstrated an openness to listen to other's perspectives and a willingness to reflect on her thoughts and assumptions on ethical values that she experienced a perspective shift in which she talked about a broadened realm of thoughts to interpret social issues and this is highly relevant and beneficial to her study, being a student of Journalism.

6.3.1.2 Feedback and guidance from lecturers

Respondents like Heather and Amy regarded receiving feedback from lecturers as important to facilitate them to make improvement on their assignments.

> "Our lecturer gave us very specific feedback for each short assignment and talked to us individually to offer further advice and suggestions to make improvement. Then we could choose whether to rework our assignment based on the feedback given for a re-assessment."
> *(Heather, female, 22 years old, Year 3 UG student* of *Creative Writing for Film, Television and New Media)*

She explained that those short assignments were part of the various phases for writing a film story, such as a story outline. These short assignments contributed to a summative assessment in a later stage, which would become a full script of screenwriting encompassing a complete plot with multiple scenes of a film. Therefore, quality of the short assignments would impact the content of the summative assessment and Heather considered feedback from her lecturer helped her develop and improve ideas for the summative assessment. It was not a common practice in Harmony University for students to be given a choice to rework and resubmit their marked assignments for re-assessment. Rather it appeared to be a particular experience for Heather who took a module on script-writing, perhaps related to the curriculum design and requirement of that particular module in the discipline of study.

Amy recalled a time in her first month of study in the University, when she initiated to seek feedback from her lecturer on the outline for an assignment, as she was new to higher education and not sure about the expectations of assignments.

> "He (her lecturer) suggested me to read some film reviews and included my comments on them in the assignment…then I realised that it is an appropriate way to work on assignment by referring to the literature...[and] I started to do the same for other modules".
> *(Amy, female, 18 years old, Year 1 AD student of Cultural Studies)*

With guidance from her lecturer, Amy demonstrates her ability to transfer the necessary academic skills of citing literature in her assignments from one module to other modules, which seems to facilitate her adjustment in higher education learning during her first year of study. Her experience reveals that there seem to be some

generic, transferable academic skills (e.g. citing references from the literature), which are essential to higher education students to acquire to promote quality of their academic work. Perhaps it will be beneficial to identify and promote the use of some generic academic skills to help first-year students adjust to higher education learning.

In Harmony University, receiving formative feedback from lecturers on assignments was neither a common practice nor a course requirement, rather it depended on students' initiative to seek formative feedback from lecturers to make improvement on their assignments (i.e. Amy). As for Heather, it was the lecturer who offered to give formative feedback to all students, possibly related to the requirement of that particular assignment or discipline (discussed earlier). Thus, it is not surprising that both Heather and Amy expressed their appreciation towards lecturers who gave feedback and talked to them individually. Their experiences corroborated students' increased engagement when they received feedback from lecturers who communicated to them in a non-authoritative way (Juwah et al., 2004), particularly those who encouraged students to have further dialogues with them to construct meaning from the feedback to improve their academic work.

The feedback encounters reported by Heather and Amy are supported by previous studies arguing that lecturers giving focused feedback, which is aligned with the course requirements is effective to sustain students' continued effort in their study (Evans, 2013). The same study also explains that feedback given in a timely manner is necessary for students to make relevant amendment to satisfy the requirements of their summative assessment, supported by the two respondents' eagerness to make further improvement upon receiving feedback for their summative assessments.

6.3.1.3 Lecturers designing teaching and learning activities

Respondents appreciated their lecturers who created an interactive teaching and learning environment with the design of hand-on activities involving cooperation between peers. For instance, Faye recalled her enjoyment in a module on "Performing Arts", during which her lecturer "planned a lot of games and activities to guide our learning" and she found it was "fun and enjoyable" *(Faye, female, 20 years old, Year 2 AD student of Creative Communications).* Emma and Frank recalled how they benefitted from and enjoyed the in-class activities designed by their lecturers as they worked with their fellow classmates.

> "My lecturer planned a lot of hands-on practices, such as working in groups to recognise media concepts from the newspaper articles … I find this helpful to consolidate our knowledge [as] we could link the concepts just learned with the newspaper articles".
> *(Emma, female, 20 years old, Year 2 AD student* of *Media Communication)*

Frank talked about how his lecturer created a learning atmosphere to encourage students to convey their ideas to each other during lectures.

> "Our lecturer advocated us to learn through debates [with peers]… He also encouraged us to ask him questions and we were welcomed to refute his views and express ours … it was very enjoyable".
> *(Frank, male, 23 years old, Year 2 AD student of History and Hong Kong Studies)*

Faye, Emma and Frank expressed how they benefitted from participating in the interactive activities in such ways that their understanding of the subject matter was consolidated (Emma) and they found the experience itself enjoyable (Faye and Frank). Earlier research has revealed students' preference for interactive lectures and problem-based learning (Plett et al., 2014; Sander et al., 2000) as students have a desire to share, to learn and to interact with each other (Sander et al., 2000), reflected in Emma's involvement in recognising media concepts from the newspaper articles and Frank's participation in debates with his fellow classmates.

In fact, all three respondents expressed their appreciation towards the thoughtfulness of their lecturers in designing those interactive activities to facilitate student learning. Frank also perceived his lecturer has acted as a role model, who has demonstrated some etiquettes of learning through debates as he encouraged students to refute his views and express their ideas. This scenario supports that how lecturers interact with students is equally important as what academic tasks they plan for students (Moore & Kuol, 2007a), suggesting the influence of lecturers' attributes on students' engagement, which I will discuss in the following section.

6.3.2 Lecturers' personal attributes and their relationship with students

Dirkx (2001) found that when students recalled incidents of memorable learning, they tended to associate instances relating to "a supportive climate, a caring teacher who listen … [and] who respects" (p.67). Indeed, studies found that lecturers' personal attributes strengthened the quality of their relationship with students (Hagenauer & Volet, 2014) and contributed to a supportive teaching and learning environment.

6.3.2.1 Personal attributes of lecturers

Personal attributes of lecturers, such as their closeness to students, good subject knowledge, clarity of presentation and good communication skills (Anderson & Carta-falsa, 2002) are recognised by students as important qualities to strengthen the lecturer-student bond and subsequently students' engagement in study. In the interview data, some personal attributes of lecturers were perceived by respondents as particularly influential in promoting their engagement in study, including lecturers who were enthusiastic about teaching, being approachable and available to respond to students' questions as well as those who set high standard for students and had expectations for student success, resonating with the top-ranked attributes of lecturers reported in previous studies (Lundberg & Schreiner, 2004; Osinski & Hernández, 2013).

(a) Lecturers' enthusiasm and its associated attributes

First, enthusiastic lecturers were recognised by several respondents as influential to increase their effort investing in study, supporting findings from previous studies (Bryson & Hand, 2007; Devlin & O'Shea, 2012; Evans, 2007; Kuh et al., 2006; Mearns et al., 2007; Párpala et al., 2010; Quinlan, 2016; Sander et al., 2000; Zepke & Leach, 2010; Zepke, Leach, & Butler, 2010a). In the present study, **lecturers' enthusiasm** was reported in conjunction with their other attributes, such as their ***expertise*** in the subject area and their ***approachability and availability*** to respond to students' academic needs. Billy described enthusiastic lecturers as those who were able to create a "nice learning atmosphere" for students and he explained how he perceived his lecturers' enthusiasm in the academic context.

> "They delivered the lectures in an interesting way, illustrated concepts clearly with relevant examples … they spoke with tone variations that I found it comfortable to listen to their lectures".
> *(Billy, male, 20 years old, Year 2 AD student of Psychology)*

Similarly, Clara and Emma reported that they were willing to invest more effort to their study in response to their lecturers who were enthusiastic in teaching. Clara reported that,

> "… if a lecturer is enthusiastic in teaching, I can feel it and of course I will be motivated to work harder".
> *(Clara)*

Emma associated her lecturers' enthusiasm with their sound subject knowledge and familiarity with the course content.

> "…some lecturers were so excited while teaching and they were so familiar with the course content ...I can feel their enthusiasm and I will also expend more effort, pay more attention [in class] that I will even sit in the front row."
> *(Emma)*

Thus, the second attribute promoting students' engagement is lecturers' expertise in their respective subject areas, as seen in the instance reported by Emma. Similarly, Melissa described her lecturers as "people who have the best knowledge about the

subject area" (*Melissa, female, 21 years old, Year 2 AD student of Creative Communications*) and Gloria expressed that she really treasured having discussions with her lecturers, whom she considered as "the experts in the subject area"*(Gloria)*. Another respondent, Kelly related the expertise of her lecturers to their sharing of practical working experience in class and considered those as helpful to equip her to connect the academic knowledge with the future work setting in the professional programme of Applied Social Service she studied.

> "I study Applied Social Service and it is important to … apply our knowledge into the actual work setting. I really appreciate our lecturers who share their working experience in the field, which I would not be able to learn from the textbooks."
> *(Kelly, female, 19 years old, Year 1 AD student of Applied Social Service)*

The sharing by Kelly's lecturer contributed to enhance the relevance of the subject matter to the students (Bryson & Hand, 2007) by demonstrating how to integrate theory into practice in the professional programme through their actual work experience. Indeed, lecturers' enthusiasm and subject knowledge were considered by students as very important qualities in promoting their academic engagement (Wrenn & Wrenn, 2009), alongside their teaching delivery with a sound structure and clarity.

From respondents' experiences, lecturers' enthusiasm was expressed in their quality teaching, such as giving lectures in an interesting way with clear illustration of concepts (e.g. Billy's experience), their preparation of the lectures (e.g. Emma's experience) and expertise of the subject matter (e.g. Faye's and Gloria's experiences), adding richer detail to the findings of previous studies (Evans, 2007; Sander et al., 2000), which mainly focused on lecturers' passion on the subject.

Next, lecturers' approachability and availability were also reported as facilitating the positive lecturer-student interactions (Frenzel et al., 2009; Skinner et al., 2014) as Gloria expressed her appreciation towards lecturers who "were willing to spend time

to discuss issues with me even those are beyond the curriculum [and they] followed up my questions in the next lecture" (*Gloria*). Likewise, Faye talked about her lecturers who were being attentive and responsive to students' academic needs that they were "willing to spend time to answer our questions with detailed explanation and examples" (*Faye).* All these instances reinforce the approachability and availability of lecturers can promote students' engagement in their study, particularly those who are ready to answer students' questions and clearly communicate their expectations of assignments to students (Denzine & Pulos, 2000; Devlin & O'Shea, 2012; Stephen, O'Connell, & Hall, 2008), also see instances of Gloria, Faye, Heather and Amy (see Section 6.3.1).

(b) Lecturers setting high standards

Lecturers setting high standard for students in academic work are welcomed by respondents, who recalled themselves spending more effort to navigate ways to fulfil those high standards set by their lecturers.

> " If the lecturer has set a high standard for us and he/she is strict in marking assessment, I will put in more effort in my study...and I want to get an 'A' from him/her."
> *(David, male, 20 years old, Year 2 AD student of Creative Communication)*

Heather described her lecturer as "quite demanding" on students' assignments that many students received low marks in their assignments. However, she was very pleased that her lecturer was willing to explain the feedback given to individual students personally and offered an option for students to rework their assignments to be assessed again. She welcomed this arrangement and wished to do better by making revisions on her assignments. Heather also talked about her appreciation of her lecturer's sensitivity to students' academic needs and challenges they faced in completing their assignments.

> "We have never written a script for films and unfamiliar with the format and the proper ways to present the features of a story in the script…so he was like giving us a second chance to improve our assignment."
> *(Heather)*

Both David and Heather responded positively to the high standard set by their lecturers and regarded those expectations as motivating them to invest more effort in their study to achieve better results. Their experiences align with studies showing students who welcomed lecturers setting high academic expectations on them (Lundberg & Schreiner, 2004) and students wanted to be challenged by their lecturers (Devlin & O'Shea, 2012), supporting David's increased effort and eagerness to navigate ways to meet the standard of his lecturer to achieve a better academic result. Heather's appreciation towards to her lecturer also suggests the influence of a lecturer-student bond on students' academic engagement presented in the next sub-section.

6.3.2.2 Bonding between lecturers and students

Lecturers' bonding with students was recognised as influential to create a favourable learning environment to promote student engagement, particularly among lecturers who are respectful, caring and encouraging when responding to students' learning needs and those who were interested to establish bonding with students (Devlin & O'Shea, 2012; Tang, Walker-Gleaves, & Rattray, 2021). Eddie and Billy both considered friendly lecturers who took initiative to bond with students could promote their engagement in study. Eddie regarded approachability of his lecturer as influential to promote his courage to seek help, "if the lecturer was friendly and caring, I dare to approach him/her when I have difficulty in comprehending the course content "(*Eddie, male, 21 years old, Year 2 AD student of Music Studies).* Billy also reported his lecturers' initiatives to bond with students as important to create a positive learning environment, which he described as "harmonious and comfortable",

encouraging him to stay focused in the classroom. Other respondents believed that having a personal bond with their lecturers has encouraged them to expend more effort to make progress in their study. Emma reported a preference for smaller class sizes because it was easier for lecturers to bond with students and to respond to students' academic needs.

> "…with only 20 students [in the class]… the lecturer could recognise us personally, understand our needs and was willing to offer help….I felt more connected with the lecturer [and] more attentive in classes." *(Emma)*

Similarly, a couple of respondents like Heather and Daisy also shared that if their lecturers knew them by names, they were likely to invest more effort in their study, particularly if they felt their lecturers had great expectations on them. Instances reported by Emma, Heather and Daisy align with findings indicating that when students perceived lecturers knew them personally (Beard et al., 2014; Dirkx, 2001; Mearns et al., 2007; Zepke et al., 2010b), they tended to expend more effort in their study, hoping to earn the appreciation from their lecturers or not to disappoint them (Bryson & Hand, 2007; Cotten & Wilson, 2006; Lundberg & Schreiner, 2004).
Calvin reported a time when he received compliments from his lecturer after asking a question in class, during which he felt encouraged and motivated to reflect his thoughts on that particular issue and seek further understanding on the subject. He explained that it was a critical moment for him because he had never received a compliment from a lecturer in front of the whole class. He continued to say that he believed that students need more compliments from lecturers, however he commented those compliments are being neglected in higher education. Alongside the encouragement from his lecturer, Calvin also showed his appreciation and respect towards his lecturer, who was willing to be fallible and being respectful to students.

> "He (the lecturer) was willing to apologise … when he made mistakes [and] he was willing to listen and accept views from us [students]".
> (*Calvin, male, 22 years old, Year 4, UG student of Human Resources Management)*

Calvin's encounter with his encouraging lecturer was supported by studies arguing the impact of a favourable teaching and learning environment co-created by students and lecturers who acknowledged and valued each other's point of view (Cotten & Wilson, 2006). Indeed, non-authoritative lecturers who showed respect and offered encouragement to students are reported to be able to strengthen a lecturer-student bond by creating a safe learning environment (Debellis & Goldin, 2006; Radoff, Jaber, & Hammer, 2019) and thus promoted further academic engagement (Anderson & Carta-falsa, 2002; Hagenauer & Volet, 2014; Moore & Kuol, 2007b).

6.3.2.3 Variations in lecturer-student interactions

Amid the influential role of lecturers in promoting students' academic engagement, there seem to be variations in how respondents from different disciplines of study reported their preference to seek academic support from their lecturers. Those variations resemble findings from a study conducted by Sander et al. (2000), which revealed that students from different disciplines of study appeared to have different patterns of expectations towards their interactions with lecturers. In their study, Social Science students were found to emphasise more on their interactions with lecturers than their fellows from other disciplines, such as Business. Melissa and Gloria, both students from Social Science, recalled their preference to reach out to their lecturers whenever they had some queries in the course materials, as they regarded their lecturers as "people who know the subject area best" (*Melissa*) and "experts in the subject area"*(Gloria)*. Melissa continued to elaborate that she thought it was more effective for her to seek help from lecturers than reading the difficult materials on her own, during which she also learned from her lecturers how to use

flexible ways to interpret issues in the subject matter.

Gloria also recalled how she made symbols next to course content she found confusing during class and talked to her lecturers after class. She found those discussions have broadened her perspectives to interpret issues relating to her discipline of study. On the contrary, Science students seem to report less encounters with their lecturers, but they are willing to spend time to make sense of the difficult courser materials by themselves. Lucy and Ivana, as Science students, both talked about their attempts to solve the problems with confusing materials with their own effort. "I tried to find out the answers by myself instead of reaching out to my lecturers in the first place" *(Lucy).* Her thoughts were echoed by Ivana, who added that she assumed higher education students, like herself, should find out the answers of the subject matter by themselves, instead of relying on others, including her lecturers. She then continued to share an excitement of being able to make sense of difficult course materials after investing her own effort in the process, resonating the feeling of satisfaction when students experienced deeper understanding of the course materials (Entwistle, 2009). Also, Ivana seems to link her choice of self-learning to an expectation of what a higher education student should do, such as taking initiative and making themselves accountable for their study.

The reported variations in respondents' help-seeking behaviours towards lecturers can be related to the approaches of teaching taken by lecturers in the respective disciplines of study. Researchers have found that Social Science lecturers displayed a more student-centred approach in teaching, while Science lecturers tended to adopt a teacher-focused approach (Evans et al., 2015; Lindblom-Ylänne et al., 2006; Párpala et al., 2010). This suggests that Social Science students are likely to experience more interactions with their lecturers in class, compared to their Science fellows, which in turn may influence students' expectations of the role of lecturers in providing

academic support and thus their help-seeking tendency. It is unconfirmed to say that Science students are less willing to seek help from their lecturers while Social Science students are dependent on their lecturers. Rather, it happens that respondents in the present study from the two broad disciplines of study resonate findings from previous studies, and these suggest a need for further investigation. Another possibility explaining the variations in students' tendency to approach their lecturers could be related to the distinctive characteristics of the course content between Social Science and Science subjects. Science students like Lucy and Ivana seem to focus on "finding out the answers" in some clearly defined concepts, whereas Social Science students talked about how they are inspired by their lecturers (Gloria and Melissa), using different perspectives to interpret issues in the subject matter. Thus, the lecturer-student interactions in Social Science students appear to serve as a platform for the lecturers and students to explore and develop ideas in their discipline, which might be more fluid and subject to more possible interpretations. The different tendencies of respondents' interactions with lecturers support the context-specific nature of academic engagement that it is malleable, situational and dynamic, which is susceptible to contextual influences (Fredricks et al., 2004; Lawson & Lawson, 2013; Skinner & Pitzer, 2012; Wang & Degol, 2014) and it may be helpful to expand the investigation on academic engagement to students from different disciplines of study.

6.3.2.4 Summary of respondents' bonding and encounters with lecturers

To sum up, respondents' recollections indicate how lecturers' personal attributes, such as their enthusiasm, sound subject knowledge and their responsiveness to students' academic needs, contributed to students' increased engagement in study. Students perceive lecturers who set high standards as motivating them to navigate ways to work through the challenges in their study, this is particularly true if their

lecturers have a personal relationship with them. Thus, lecturers' attributes appear to contribute to their bond with respondents and facilitate discussion and feedback moments by creating an encouraging environment, which then promote students' further engagement in study.

6.3.3 Respondents' bonding and encounters with peers

Studies showed that peer interactions were positively linked with students' academic engagement (Mearns et al., 2007; Zepke et al., 2010b), supported by recollections of 15 respondents, who recalled benefitting from their bonding and encounters with their fellow classmates.

6.3.3.1 Respondents' academic discussion and group work with peers

Respondents generally regarded peer interactions as beneficial to their learning, such as Kelly reported having peer discussion helped her understand the course content better and Emma perceived peers who raised questions on the subject matter has promoted her thoughts in the subject content, as she had to think about her ideas and views before expressing them to her fellows.

> "When my fellow classmates raised good questions during lectures, they stimulated me to think deeper as I had to respond to their questions based on my understanding".
> *(Emma)*

Emma's experience was supported by studies revealing that deeper cognitive understanding of the course materials (Trigwell, 2005) was promoted by students who asked meaningful questions to each other. In those occasions, students justified their views with evidence from the text or revisited their understanding of the course materials in order to articulate their ideas to their peers, thus promoting deeper level of processing. Heather felt communicating with peers helped her "learn most effectively", no matter when she helped her fellow classmates or receiving help from them during those academic discussion, which she seemed to relate to assessment too.

> "No matter I was teaching my friends or receiving help from them, the discussion clarified [my thoughts] and [check my] understanding of the subject matter … It gave me more exposure to knowledge … if you have never discussed (the course materials) with someone, you don't really know whether you get it [the subject matter] correctly…until the examination, and that's too late".
> *(Heather)*

Amy recalled how she has enhanced understanding of the subject content after discussing with her fellow classmates, whom were unsure of the requirements of an assignment.

> "I learn most when I teach others [as] I had to express my thoughts to them. I have not thought of those questions until my fellow classmate raised them, [which] motivated me to think further before expressing my views."
> *(Amy)*

Both Heather and Amy reported that they benefitted from reciprocal learning (Choi, Land, & Turgeon, 2005), during which while students being a learner themselves, also offer help to their fellow classmates to make sense of the course materials. Their experiences, particularly Heather's, support findings that peer learning help students clarify concepts, which would have otherwise been misinterpreted if students did not have the chance to discuss among themselves (Picton et al., 2017).

Some respondents appreciated the synergy of group work was better than working alone, as they reported working with peers has inspired them to develop more ideas about the subject matter. Emma described peer learning as "powerful" as she worked with her fellows on a group assignment.

> "We had some division of labour ... peer learning was more powerful than learning by myself [that] … some classmates were more competent in a certain area than me [and they] stimulated me to think more about the issues."
> *(Emma)*

Emma was joined by Amy, a first-year student, who recalled dividing a huge load of required readings among her fellow classmates to read before lectures, and then shared their views on the course materials with each other.

> "… too many articles to read you know… we shared the load [that] everyone read a bit [and] we discussed our views afterwards. Usually the second year folks would share more of their views … really helpful for us."
> *(Amy)*

It seems that respondents valued listening to different views from their peers and this was further elaborated by Faye, also reported her appreciation towards her peers for a discussion on a philosophy module. From the discussion, she reported realising that there was more than one possible perspective to interpret the course materials, as she listened and analysed the views from her peers. Also, she regarded group work has increased her engagement in study as she had to get herself prepared before attending the group meetings.

> "I had to proactively think about the topics we could work on and prepare some questions to lead the discussion, [in order to] help us to stay focused on the topics or we would be easily drifted away."
> *(Faye)*

Indeed, academic discussions between peers provided students with a platform to articulate their thoughts and views to each other (Naude et al., 2014), which then promoted students' cognitive understanding of the subject matter and knowledge acquisition (Topping, 2005; Värlander, 2008; Zher et al., 2016). Boud (2001) also suggested that working with peers fostered students to develop academic skills, such as critical inquiry, self-reflection and use of strategies to manage their learning, as seen in Faye's experience, who prepared for the meetings to facilitate effective discussion with her peers.

Several respondents like Frank, Lucy and Ivana reported extending their academic discussion with peers beyond classrooms. Frank reported that his debates with peers in class "would sometimes extend beyond our lectures". Lucy and Ivana reported continuing discussion with peers who shared similar academic goals, such as achieving outstanding academic performance and those who shared the same passion in the subject matter.

> "We formed study groups to prepare for the examination, we shared our understanding of the course materials with each other and thought how to answer some questions if they appear in the examination".
> *(Lucy)*

Furthermore, Ivana and her fellow classmates in the same discipline of study participated in different activities related to environmental conservation outside the institution.

> "We talked about environmental issues outside class, attended off-campus seminars on topics of environmental conservation together, and we also initiated some voluntary work to pick up plastic waste on the beaches".
> *(Ivana)*

The extended discussion reported by Frank, Lucy and Ivana was supported by findings where students benefitted from study groups beyond class, during which they actively articulated their ideas to each other (Christie, Tett, Cree, Hounsell, & McCune, 2008). Ivana and her peers did not only gather together to pursue their knowledge on environmental conservation, but also taking the initiative to serve the community with their knowledge, reflecting a strong connection of personal relevance between their discipline of study and their life. Regardless of the scope of those beyond-classroom peer interactions, from Frank's extended debates with peers outside classroom and Ivana's voluntary work to serve the community, respondents appear to gather with their peers who shared similar academic goals and passion to meet in groups, which serve as platforms to strengthen their knowledge of the subject matter. These groups beyond formal classrooms are arguably offering a safe place for students to gather together that they did not feel alone in their struggles in study, promoting a sense of belonging (Plett et al., 2014), which subsequently contributed to an increased academic engagement in those students.

6.3.3.2 Friendship and peer support promoting engagement

Another strand of peer interactions is related to the role of friendship and peer support as respondents described receiving help from their peers, particularly in times of academic challenges and setbacks, such as having difficulty to catch up with the subject matter and in face of unsatisfactory results. When being asked if there were any factors that promoted her engagement in study, Daisy answered,

> "It's definitely the relationship with my peers [as] we shared a same goal to get a place in the degree programme, and we got along really well. I felt good during the course of my study despite the difficult assignments".
> *(Daisy, female, 21 years old, AD Year 2 student of Creative Communication)*

Frank regarded working with his fellow classmates who shared similar goals in study "made me feel less lonely and less stressful about my study", while Faye reported she was happy to have met some "nice fellow classmates", who helped her adjustment to higher education during her first year of study. Some respondents like Melissa and Emma also recalled how their friends influenced them to expend more effort in their study, for instance, Melissa reported that she was motivated by her friends who were eager to learn, so that she invested more effort in her study. Emma asserted the important role of having friends around that she felt less awkward to reach out to lecturers for help on the subject matter with the company of her friends than doing it on her own.

The quality of peer relationship serves as a strong predictor of university adjustment and students' attachment to their peers (Maunder, 2018), as reflected in Faye's adjustment in the new environment with the company of her fellow classmates and Frank's reduced stress and loneliness when he met fellows who shared similar study goals. Maunder (2018) also found that friendships promoted a sense of belonging in students (see Ivana's experience in the next paragraph), whom shared similar goals and struggles in study (e.g. Frank's experiences), which then deepened their cognitive

understanding as they engaged in more discussion on the subject matter. Friendship between students was also expressed in terms of peer support as respondents recalled seeking help from their peers. Several respondents like Emma, Lucy and Ivana reported reaching out to their peers with prior knowledge in modules when they had great difficulties comprehending the course content. Ivana felt grateful to have her fellow classmates helped her catch up with the course materials when she felt totally lost in the subject matter. Once she started to catch up with the course materials in her major programme, she found "the academic discussion [with peers] was enjoyable and happy [and] I felt more belonged to my programme" because she managed to make sense of the course materials with peer support and she was willing to invest extra time on her study, resulting from that enjoyment.

Some respondents reported how peer support helped them improve their quality of assignments and presentation. Bella talked about asking her peers to comment on her assignments as really helpful.

> "As I was not confident in my English proficiency, I sought help from my friend to read and comment on my assignments before submission".
> *(Bella)*

Billy expressed his excitement when recalling how his fellow classmates offered academic support proactively to each other for their group project presentation.

> "Fellow classmates from one group initiated to pass on their presentation materials and shared their experience and tips to the next group … and all other groups did the same … the whole class benefitted [and] performed better."
> *(Billy)*

Billy reiterated that "it was not necessary" for his fellow classmates to share their presentation materials and experience with each other when they have finished their own presentation. He expressed a great appreciation towards the generosity of his fellow classmates, who contributed to a positive and collective learning experience during which the whole class can benefit learning from each other.

Recollections of respondents are in line with findings revealing peer feedback has built students' self-confidence in study and helped them realise how to make improvement to produce better work (Zher et al., 2016). The same study also suggested that students found it easier to seek help and accept criticisms from their peers, whom were at similar age as them and whom had gone through similar experiences, struggles and difficulties in the path of study.

Alongside academic help, respondents also talked about receiving social support from their peers helped them overcome challenges and setbacks. Emma reported that disclosing her poor results to peers helped her persist and work hard in her study.

> "I told my friends, '*Oh no! I've got a C!*' [and] promised them I would work really hard for the next assignment in the same module ... we would monitor and help each other."
> *(Emma)*

Emma's scenario reveal the quality of relationship with her fellow classmates that they seem to be supportive and accountable to each other as Emma felt at ease to pledge her hard work and trusted her fellows would "monitor and help each other" to stay motivated in study. At the same time, Emma also talked about observing her peers who were able to achieve good results made her think that she should be able to do the same. Her reference to peers' ability reflects how students' self-efficacy can be fostered when they observe successful experiences from peers, who are similar to them. Emma's experience also resonate with findings revealing peers acted as the positive models of academic resilience for students to observe and learn from amidst setbacks (Johnson et al., 2015), which empower them to persist in their study. I will discuss instances relating to respondents' self-efficacy and academic resilience further in Chapter 7.

Amy talked about how social support from peers helped her overcome the negative feelings after she received unsatisfactory results from the assignments.

> "…I would not chat with peers whom tend to agree with me and comfort me, but those who are tough and would refute my views."
> *(Amy)*

In this extract, Amy reveal her choice of soliciting help from peers who seem to offer alternative views to interpret her academic setbacks, instead of those who tend to agree with her and shared similar views as hers. Her choice suggests that sometimes students may not only prefer talking to pampering peers who make them feel better, but someone who could offer them alternative perspectives and constructive feedback to help them improve. Amy also reflects a determination to overcome the negative feelings associated with academic setbacks and the ability to use available resources (i.e. her peers) to help herself transform failures into future success, resembling some characteristics of hope, academic resilience as well as self-regulated learning, and I will present them in the next two themes in Chapters 7 and 8 respectively.

On other occasions, students reported reciprocity between receiving help from peers and offering help to them (Naude et al., 2014) as Bella recalled the mutual help between herself and her peers academically and socially. In terms of academic support, Bella talked about offering help to her fellow classmate on a science subject, while seeking help from the same fellow on arts subjects. She perceived this mutual help between peers was helpful to enhance academic performance for both parties. She also recalled benefitting from the mutual social support between her and her fellow classmate in times of academic setbacks and worries.

> "…when I felt upset, after talking to her , I felt better. When she was very nervous before doing a presentation, I tried to encourage her to be confident."
> *(Bella)*

Her experience supports studies suggesting words of encouragement given between peers were influential to foster academic resilience in students (Cavazos, Johnson,

Fielding, Cavazos, Castro & Vela, 2010; Johnson et al., 2015), reinforcing the linkage between peers and some psychological resources found in students, which will be the focus of discussion in the next theme in Chapter 7.

6.3.3.3 Summary of respondents' interactions with peers

To sum up, respondents' interactions with peers has promoted their academic engagement of respondents as they exchanged views and articulated their thoughts with each other. Likewise, they also described how mutual between peers academically and socially has sustained their effort in study despite setbacks and challenges. Sometimes, respondents reported positive emotional experiences as they recalled their peer interactions, such as Ivana expressing her enjoyment and happiness when she was able to make sense of the subject matter with the help from her peers (see Section 6.3.3.2), reinforcing the mutually sustainable link between positive emotions and positive peer interactions (Naude et al., 2014) and they both promoted students' academic engagement. Linnenbrink-Garcia et al. (2011) explained positive peer interactions as occasions when students actively supported their fellows' engagement in study, showed respect to each other and worked collaboratively to complete the group work. For instance, Billy's recollection of a mutually empowering learning environment during which his fellow classmates proactively offered academic support to each other, which then promoted their peers' collective learning experience. In fact, some other affective elements were also embedded in respondents' recollections as they reported interactions with peers, like Emma has possibly reflected an enhanced self-efficacy and academic resilience from observing how her peers succeeded academically and bounced back from academic setbacks. These experiences also support the inter-relatedness between the various affective elements related to student learning, which will be discussed in detail in Chapter 7.

6.3.4 Chapter summary

Chapter 6 focused on the crucial role of respondents' bonding and encounters with their lecturers and peers as an important aspect of the affective dimension of learning and such encounters have fostered their engagement with their study. Those encounters between respondents and their lecturers and peers seem to reveal a social aspect of academic engagement (Bowden et al., 2021; Pekrun & Linnenbrink-Garcia, 2012), explaining how the bonds between the parties foster students to co-construct knowledge with their lecturers and peers (Ashwin, 2012; Ashwin & Mcvitty, 2015; Coates, 2005; Krause & Coates, 2008; Velden, 2013). Indeed, respondents' interactions with lecturers and peers appear to be a communicative platform where the three parties can exchange views and articulate thoughts on the subject matter, which then promote students' deeper cognitive understanding as they get inspired from those discussion. Despite their positive influence on students' engagement in study, the role of lecturers and peers are distinctive that respondents perceive lecturers as the experts in their respective disciplines of study, who inspire their deeper thoughts and perspective shifts with questions and feedback. As for peers, respondents regard their fellows as someone who share similar abilities and struggles as them, so that they feel comfortable to seek help from peers whenever they face difficulties and confusion in their study. All these findings add empirical evidence to support studies which argued for the quality of students' relationship with lecturers and peers in promoting students' engagement in study (Ahn & Davis, 2020; Gillen-O'Neel, 2021; Meehan & Howells, 2019; Van Gijn-Grosvenor & Huisman, 2020).

Chapter 7

Theme Two: The affective elements associated with academic engagement

7.1 Theme Two: The affective elements associated with academic engagement

In the previous chapter, I presented respondents' interactions with their lecturers and peers respectively, focusing on the quality of those interactions and their influence on students' academic engagement. In this chapter, Theme Two encapsulates how such affective elements as study-related emotional experiences, students' interest in learning and their psychological resources (expressed in PsyCap) were represented in respondents' episodes of academic engagement. In their recollections, respondents also recalled how they perceived those affective elements have influenced their engagement and persistence in study despite challenges and setbacks. Affective elements reported are broadly organised into four sub-themes, presented as follows and also in Figure 7.1.

- Emotional experiences and engagement
- Interest in learning and engagement
- The role of Psychological Capital in engagement
- Inter-relatedness of the affective elements

The first three sub-themes involve instances as respondents focused on recalling some specific affective elements (e.g. PsyCap) in their experiences of academic engagement, whereas the last sub-theme explains how the various affective elements influenced each other, which subsequently fostered students' engagement in study.

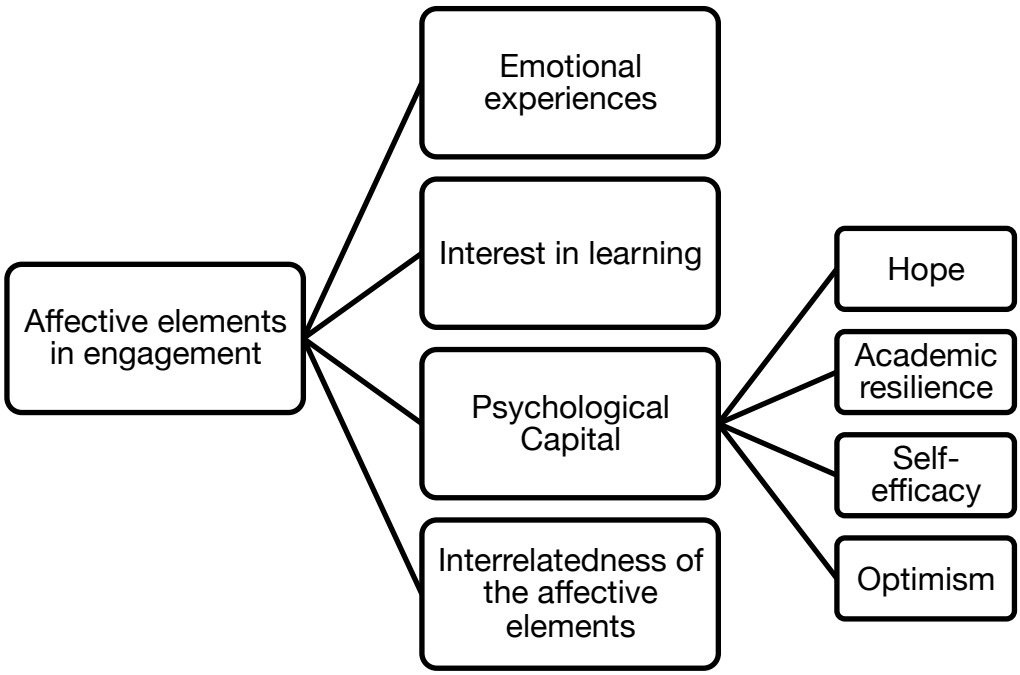


Figure 7.1. Theme Two and its sub-themes capturing the affective elements associated with experiences of academic engagement.

As discussed in Sections 6.2.2, Theme Two is closely related to respondents' interactions with their lecturers and peers (i.e. Theme One) as they both contribute to the integrative framework encapsulating the affective dimension of learning. In Chapter 6, I discussed instances of respondents' interactions with lecturers and peers, in the current chapter, I will focus on explaining how respondents' emotional experiences, interest and psychological resources were represented in their recollections of engagement (marked in Figure 7.2).

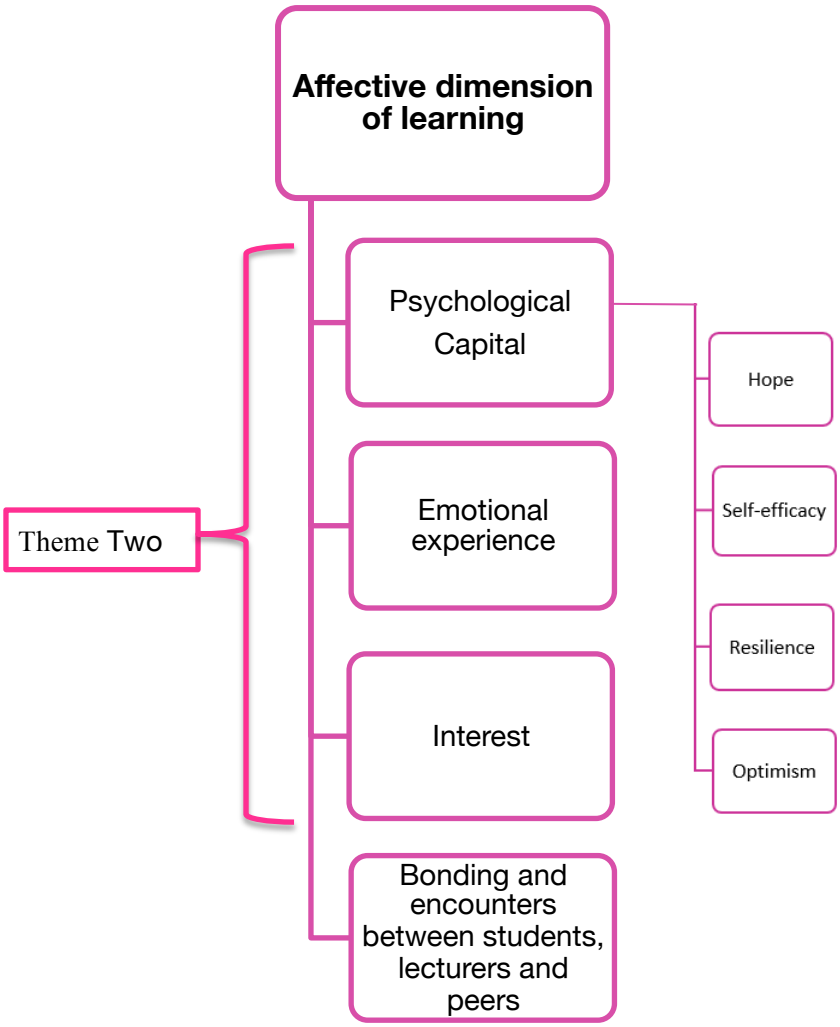


Figure 7.2. Theme Two in relation to the integrative framework of the affective dimension of learning

7.1.1 Emotional experiences and academic engagement

The important role of emotions in student learning was recognised by earlier researchers (Askham, 2008; Blackie et al., 2010), who advocated the need to explore the emotional experiences of students in their study, so as to understand the affective dimension of learning and its relation to students' academic engagement. Indeed, 15 respondents out of 20 reported emotional experiences as they recalled instances of academic engagement. Quinlan (2016) argued for the vital role of emotions as four key relationships in higher education, namely students' relationship with the subject, their lecturers, their peers and their own personal development. Her study results

are supported by the present interview findings that emotional experiences were embedded in instances as respondents reported their knowledge acquisition and interactions with their lecturers and peers. Some respondents reported positive emotional experiences when they were engaged with the subject matter in depth, supporting the linkage found between positive emotions and a deeper approach to learning (Trigwell et al., 2012). For instance, Faye expressed that she "felt satisfied when I was thinking about an issue deeply", while some other respondents also associated their positive emotions with a deeper understanding of the subject matter.

> "… trying to find out the answer by ourselves … I felt really excited to make sense of the course materials and I remember them better." *(Ivana)*

Gloria expressed her happiness and enjoyment recalling how she spent long hours in the library to look for more information to explain theories in greater detail.

> "I felt really happy that I could find out the answers to the questions on my mind …I used the information I found to supplement my notes [and] my curiosity was fulfilled [and] I felt enjoyable and involved in learning that I even lost track of time." *(Gloria)*

Melissa expressed her enjoyment when taking the philosophy module of "Life and Death" as she reported expanding more perspectives to interpret issues in life.

> "It was really enjoyable and I have developed some new perspectives to interpret human life that death might be more than the end of life. That helps me to interpret life issues in more flexible ways [that] if I can't find the answer to something, I can keep searching for possibilities, rather than simply making a conclusion". *(Melissa)*

In addition, respondents also expressed some positive emotions as they acquired deeper subject knowledge from interactions with lecturers and peers. Billy felt "pleasantly surprised" from the interactions with his lecturer, which "expanded my capacity to take in more perspectives and generate richer ideas, I felt amazed". George reported his happiness as he gained knowledge from collaborative work with peers, who shared the same eagerness to seek new knowledge. He felt satisfied when

they were able to articulate their views to lecturers after the group work. Sometimes, respondents shared their positive emotional experiences when they made progress in their study, for instance, Clara recalled her change of emotions from being confused to feeling satisfied as she gained clarity of the course materials ("queries were resolved"), subsequent to an academic discussion with her lecturer. David reported his happiness and excitement as he invested time to study and experiment with the techniques of using a software for graphic design to create some special effects in his design work.

> "I followed each step cautiously, kept practising and experimenting the steps repeatedly until I could create the effects I wanted … Oh, it's really happy… I saw myself making progress [and] being able to manage it, I was definitely happy about that."
> *(David)*

Respondents' experiences add more details to the links between students' positive emotions and their progress in study (Trigwell et al., 2012), by explaining the linkages between experience of positive emotions and the effort they spent on the academic tasks. For instance, when respondents recalled how they immersed themselves to seek deeper understanding of the subject matter and found it fulfilling and satisfying (e.g. Gloria) and how they expended continuous effort in trials and errors to acquire the necessary knowledge and skills required in their study (e.g. David). It seems that the positive emotions are resulted from students' persistence effort invested in their study proportionately.

7.1.1.1 Influence of emotions in academic engagement

In addition, respondents also talked about their perception of how emotions have influenced their engagement in study as some of them regarded the emotional states of calmness and relaxation could help them stay engaged in their study. Calvin regarded "staying calm is important to solve the academic problems and challenges", while Daisy expressed that "staying calm and relaxed help me set aside more time to

make plans on how to work on the assignment." Frank expressed that "keeping my mood peaceful and relaxed [then] I am more confident to handle my study stuff". It appears that respondents' emotional states of being calm and relaxed support findings suggesting that positive deactivating emotions (e.g. relaxed) fostered students to continue investing effort in their study in the long run (Pekrun, 2006; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011; Pekrun et al., 2002).

On other occasions, respondents reported instances where they experienced negative emotions and perceived those emotions as motivating them to invest more effort in their study. David talked about his disappointment when he was yet to meet the standard of his lecturer. He recalled a scenario where the design works of all fellow classmates were displayed in class for peer critique and his lecturer's comments.

> "… (my design works) received compliments from all fellow classmates, but not my lecturer and I was quite disappointed. Yet, it [the disappointment] motivated me to work even harder as I wanted to achieve better and earn the recognition from my lecturer."
> *(David)*

The influence of David's disappointment in enhancing his effort in study supports previous findings (Pekrun, 2006; Pekrun et al., 2011, 2002) and his motivation to increased effort could also be related to his wish to fulfil the high standard of his lecturer as discussed in Section 6.3.2.1(b). Another respondent, Faye, admitted that she was discouraged and anxious after receiving unsatisfactory academic results, yet she regarded such anxiety has motivated her to expend more effort in her study.

> "I quite like this feeling [of anxiety], it's alright to fail sometimes. Understanding my inadequacy definitely helps me learn, it motivates me to perform better".
> *(Faye)*

Also recalling negative emotions, Emma talked about using her guilt after receiving a low mark in her quiz as she attributed the unsatisfactory result to her habit of procrastination.

> "I got a C+ in a quiz! I wrote it down in my diary, together with my bad habit of procrastinating … I intentionally made myself feel guilty to remind me to work hard next time."
> *(Emma)*

Despite having experienced the negative emotions of anxiety, disappointment and guilt associated with the unsatisfactory academic results or feedback, respondents like David, Faye and Emma did not regard those setbacks and negative emotional experiences as detrimental to their study. Instead, they interpreted those negative emotions motivated them to work harder for better results, supporting how negative activating emotions (e.g. anxiety, guilt and shame) were found to influence student to invest more effort in their study as they wanted to avoid another failure in the future (Pekrun, 2006; Pekrun et al., 2011, 2002; Pekrun & Linnenbrink-Garcia, 2012).

From their recollections, respondents also reveal a positive appraisal of the negative emotions and an attempt to transform them into constructive energy to persist in study, reflecting some characteristics of academic resilience (see Section 7.1.3.2), another affective element signifying the psychological capacities of students.

However, at other times, negative activating emotions might leave some adverse effects on students' wellbeing, despite they were reported as motivating students to complete their academic tasks. Bella talked about her anxiety and anger of working all by herself for a group presentation due on the next day because her peers did not contribute to the group work.

> "I was so angry and scared that I cried so badly [that] I could only pull myself together and get focused to work on the presentation… but I did not learn anything".
> *(Bella)*

Upon completing the group presentation, Bella described herself as "feeling good, but also quite negative", she explained that she felt good about being able to complete the presentation in time, yet feeling angry, anxious and sad for having to struggle hard and work alone in the pressing time without much contribution from her group

members. Bella's reported anxiety and anger seem to keep her focused on finishing the presentation in the short-term, yet, she did not feel like learning something from that experience. Her interpretation of the influence of those negative activating emotions like anxiety and anger suggests that perhaps those negative emotions could promote students' effort in the short run (e.g. completing an assignment) if they are experienced in moderate intensity. However, Bella's reported anxiety and anger seem to be so intense that she had to suppress her emotions from distracting her focus on academic work, and subsequently she did not feel herself making any advancement in her knowledge, but a compliance to complete the academic tasks required. Her experience indicates the lack of enjoyment and satisfaction in study seems to have considerable influence on students' connection to their academic work and it also reflects traces of the experience of disengagement recalled by respondents in the present study, which I will discuss later in Chapter 8 as Theme Four emerging from the interview data.

To sum up, findings capturing how emotional experiences are represented in students' engagement with their academic work address the call for richer understanding of the role of emotions in student learning (Beard et al., 2014; Blackie et al., 2010; Efklides & Volet, 2005; Goodwin, 2018; Jackson, 2015; Kahu, 2013; Linnenbrink-Garcia & Pekrun, 2011;Pekrun, 2006) in such a way that recollections of respondents add finer details of how students attend to and interpret their study-related emotions (Moore & Kuol, 2007a), attending to the complexity of the role of emotions in academic contexts.

7.1.2 Interest in learning

The second sub-theme representing the affective elements is concerned with the role of interest in learning as a majority of respondents (17 of 20) recalled how their interest associated with the subject matter promoted their engagement in study.

Kelly explained that how much effort was she willing to invest in study "depends on whether I am interested in the module" and Calvin asserted that "only when we are driven by our interest, we will pursue learning further." Other respondents, like Heather and George talked about paying more attention during lectures and spending extra time to look for further information in subject matter they if they were interested in. Indeed, interest towards the subject matter appears to encourage respondents to stay engaged to achieve their goals despite difficulties. David talked about his continued attention and effort to persist in understanding some challenging course materials because he thought the module was fun, so that he "kept trying even I did not understand the course materials at first", while Amy emphasised her interest in the subject as the reason which "drives me to make plan for completing my assignment". These instances indicate that interest in learning has promoted respondents' effort to overcome difficulties and to achieve goals in their study, e.g. Amy making plan for her study and David's increased effort and persistence in making sense of the difficult course materials.

Sometimes, respondents like Jenny and Billy talked about their interest in modules which they can relate the course content to their daily life.

> "I am interested in those modules which are more fun and more practical, so that I can apply those concepts in my life."
> *(Jenny, female, 22 years old, Year 3 Top-up Undergraduate Degree student of Liberal and Cultural Studies)*

Billy talked about his interest in Psychology and regarded the topics provided him "the opportunity to see things with multiple perspectives" and inspired him to use some of the psychological theories to interpret the underlying causes of life incidents, such as reasons for making certain decisions. When asked about how their levels of interest in a particular topic or subject matter have developed, respondents recalled having their interest increased when they had some exposure to the course content.

Melissa expressed her interest in some theories in a philosophy module when she started taking the module, particularly after she thought she understood the content.

> "I find it very interesting to be able to learn those principles of philosophy, which I thought difficult to understand in the first place. I like it when I could understand their meaning".
> *(Melissa)*

Both Alex and Ivana talked about how their interest of the subject matter increased when they were exposed to new knowledge.

> "When I get to know something new, I would like to explore it deeper, even they may not be covered in the curriculum".
> *(Alex, male, 20 years old, Year 1, AD student of Geography and Resources Management)*

Ivana also reported that her interest grew in the subject with continued exposure to the course content that she wanted to know more in order to satisfy her curiosity. She continued to explain her increased attention during class when she came across new knowledge because she was worried about not being able to catch up with the study progress. It seems that the novelty of the course content and an uncertainty in her ability to understand the course content have promoted her interest and this support findings arguing that interest being generated by students' novelty and unfamiliarity of the course materials (Silvia, 2010). The experiences of Alex and Ivana resemble the development of interest in learning concerning how a situational interest in students is triggered when they are exposed to new knowledge (Hidi & Renninger, 2006; Renninger & Hidi, 2011; Silvia, 2010). That situational interest could possibly progress into an individual interest if students continue to explore that new knowledge in greater depth, particularly if students consider the knowledge as personal, relevant and valuable to them (Hidi & Renninger, 2006). In the following extract, George's experience reflected such progression from a situational interest to an individual interest as he attached his personal values with the subject matter of

Environmental Conservation that he aspired to promote awareness of environmental conservation to general public.

> "When I get to know more [about Environmental Conservation] … I feel like having a responsibility and a mission to contribute to a better environment by using my knowledge. I wish [I can] influence people around me to do the same [to protect our environment]."
> *(George)*

These findings concerning interest development illuminate some possible ways for educators to facilitate students' engagement, perhaps through promoting their level of interest in the subject matter in such ways like exposing them to novel knowledge and explaining the value and meaning of the subject knowledge to students (Ainley et al., 2002; Hidi & Renninger, 2006; Krapp, 2005).

7.1.3 Psychological Capital promoting academic engagement

The last sub-theme captures how respondents managed to persist in study despite challenges and setbacks in the course of their study, as 17 respondents mentioned using psychological resources, reflected in Psychological Capital (PsyCap), consisting of hope, academic resilience, self-efficacy and optimism. Among the four components, respondents recalled more instances reflecting hope and academic resilience than self-efficacy and optimism, possibly related to a tendency for respondents to recall experiences involving actual behaviours, resembling the notions of hope and academic resilience more closely. However, self-efficacy and optimism of respondents were also embedded in the recollections of experiences relating to hope and academic resilience and I will unpack them as I present the findings in the respective sections.

7.1.3.1 Hope

When facing difficulties in study, respondents displayed characteristics of "hope" in PsyCap, which involves a determination to begin and sustain their efforts to achieve academic goals as well as an ability to derive multiple pathways to reach those goals

(Snyder, 2002; Snyder, Rand, et al., 2002).

> "I think there must be solutions for every problem…when I came across difficult course materials, I found them a bit challenging but I knew I should be able to handle them. Sometimes, I may want to escape from those difficulties, but I will push myself to face them." *(Bella)*

Faye talked about her usual habit to shift to use various pathways to reach her academic goals when one way did not work.

> "When I am determined to attain something, I invest all my effort to achieve the goal, even I am obstructed by other people. I can think of different possible ways to solve the problem…when a path is blocked, I think of taking another route immediately." *(Faye)*

From this extract, Faye explicated both a determination to persist in achieving her goals (a component of hope) and the use of multiple pathways to solve a problem when the original path is blocked (hope pathways). Bella, alongside her determination to solve the problems in study, also reflected a sense of self-efficacy (Snyder, 1995, 2002) believing in her ability and commitment to understand the challenging course materials despite brief thoughts of giving up. Her experience support findings revealing the mutual influence between hope and self-efficacy (Bandura, 2008, 2012), indicating that self-efficacy is sometimes embedded as respondents demonstrated hope.

Another respondent, George, exhibited his hope when recalling his overall process of pursuing higher education as he reported taking alternative pathways to attain his university degree via taking an Associate Degree. He explained that the alternate route was a longer one as it involved taking a preparatory programme before the Associate Degree, followed by the Top-up Undergraduate Degree he was taking at the time of the interview.

> "It's a bit like a detour and it's harsh, I find it very enjoyable as I found my interest in the subject of environmental conservation and I have finally achieved my goal".
> *(George)*

Here, he also exhibited academic resilience in pursuing higher education study as he persisted in the long journey to pursue his university degree despite the extra time spent and challenges faced ("a detour and it's harsh"). The experience of Bella and George support the interdependence of PsyCap components, such as hope, self-efficacy and academic resilience, which are likely to promote each other, as a result of the spiral effect between these psychological resources (Davidson et al., 2012; Feldman et al., 2015; Feldman & Kubota, 2015). The cumulative influence of PsyCap as a composite construct is also represented in the subsequent sections as respondents recalled instances explicating multiple dimensions of PsyCap.

7.1.3.2 Academic Resilience

Academic resilience, another component of PsyCap, involves students' capacity to bounce back from adversities and setbacks (Luthans, 2002). Academically resilient students tend to see challenges as opportunities to sustain their effort and succeed in the future (Luthans, Vogelgesang, & Lester, 2006). The majority of respondents demonstrate their academic resilience when recalling how they managed to overcome difficulties and setbacks in their study and to strengthen their strategies for handling future obstacles. Through self-reflection, they evaluated their difficulties positively and perceived them as useful learning experiences for the future despite the discomfort and frustrations caused (Hensley et al., 2015; Richards et al., 2013). In times of academic setbacks, Frank reported how he evaluated his academic progress and made plans for improvement.

> "I keep reflecting [and] I try to locate my faults and think of ways to make improvement. l take small steps gradually to keep myself stay grounded."
> *(Frank)*

Amy and Clara talked about their choice to persist in study despite the negative feelings resulting from unsatisfactory academic results. Amy admitted that she would get upset after receiving the unsatisfactory results, but she would face the

sadness with a positive mind. She also explained how her academic resilience was influenced by her father as a role model for her as her father spent strenuous effort to overcome numerous challenges and seemingly impossibilities in his profession. Clara also concurred that she would get upset in face of unsatisfactory results, however, instead of giving up, she would "keep trying and found out the reasons for my failures and I won't repeat them again"*(Clara)*. Likewise, Faye reported that she reflected upon her effort invested and evaluated her ability for the academic task concerned after receiving an unsatisfactory result. Ivana described how she managed to overcome the negative feelings resulting from an unsatisfactory result and shifted her focus by reminding herself of a long-term academic goal in order to persist in her study.

> "When I got a C for my assignment, I felt heartbroken, however I did not see that as a total failure. After all, we're fighting a long-term battle instead of focusing on one module, thus I got over my negative emotions rather quickly."
> *(Ivana)*

These respondents shared a future-oriented perspective and believe they would be able to make improvement by reflecting on and learning from their mistakes (e.g. Clara and Faye) and by re-focusing on their long-term academic goals (Ivana). Their experiences support previous findings which found that academically resilient students tend to evaluate stressors and challenges as opportunities for their personal advancement (Hensley et al., 2015; Richards et al., 2013). Overcoming those challenges may lead to positive gains (Fletcher & Sarkar, 2013), including an enhanced academic resilience and more effective use of coping strategies for future challenges in order to sustain their effort and succeed (Bonanno, 2004).

In addition, the strenuous attempts of respondents like Amy, Clara, Faye and Ivana to get over their negative feelings reflect an emotional aspect in the process when students develop their academic resilience. Respondents reported how they

recognised and acknowledged their negative emotions resulting from the unsatisfactory academic results before taking steps to bounce back from those setbacks, supporting studies revealing that academic resilience mediated the impact of emotions and they subsequently enhanced students' coping strategies in future stressful situations (McLafferty, Mallett, & McCauley, 2012; Sarrionandia, Ramos-díaz, & Fernández-lasarte, 2018). Further investigations are required to unveil more details about the underlying processes of how academic resilience interacts with study-related emotions, for instance, whether academically resilient students have developed better emotional management or it is the emotional stability in them promoting their academic resilience in facing adversities. Still, these findings contribute to address one of the limitations resided with PsyCap when it is being measured quantitatively, in which the role of emotions is relatively addressed (See Section 3.2.5), reinforcing the need for the integrated framework I formulated in the present study (See Figure 3.5). Some other respondents like Gloria and Melissa recalled how they managed to make use of their unsatisfactory academic results to motivate themselves to work hard in study.

> "I seldom stay at the point of failure as I have a clear goal of becoming a journalist. I wrote down my low marks on memo pads and stick them on my wall [to] motivate me to work harder and achieve better result the next time."
> *(Gloria)*

While Gloria focused on her career goal to help herself persist in study, Melissa shared how she read the unsatisfactory academic results on her academic transcript and revisited the course materials to check against her answers in the examination in order to find ways to do better next time. Both Gloria and Melissa showed their determination to perform better academically by using their unsatisfactory academic results to help themselves bounce back from setbacks and challenge and motivate themselves to stay engaged to work hard for their future academic success. Their

perceptions resonate with previous studies reporting academically resilient students saw academic setbacks as motivating them to stay engaged in study despite those setbacks were unpleasant and uncomfortable (McLafferty et al., 2012; Sarrionandia et al., 2018). While Gloria and Melissa relied on their determination to bounce back from setbacks, some other respondents, such as Emma and Amy turned to their peers for support. Melissa also reflected the characteristics of self-regulated learning as she reflected on her performance by revisiting notes and seeking ways to monitor her study progress. In face of their unsatisfactory academic results, Emma reached out to her fellow classmates and took reference from their assignments to learn how to do better in her next assignment, whereas Amy talked to her peers who "would refute my views" to get some constructive feedback to help her persist in study. Previous studies found that social support acted as a strong predictor of academic resilience in students (Hensley et al., 2015; Richards et al., 2013) and students regarded peer support as important to help them persist in study despite challenges (Weidong et al., 2012).

At other times, some respondents like David and George reported choosing challenging academic tasks and their determination to overcome them. David shared that "I become stronger when I face challenges…and I have an urge to conquer them [challenges]". George talked about his choice to work on a very difficult topic he was interested in for his assignment.

> "Although the information I had to go through were quite difficult and I could not understand them all. I love this challenge as I felt like I was researching for some new knowledge."
> *(George)*

Richardson (2002) argued that students can develop their academic resilience when they choose challenges over routines, like David's strengthened resilience after overcoming academic challenges and George's effort of understanding the difficult course materials on an unfamiliar topic for his assignment. Indeed, academic

resilience is more likely to be fostered if students are exposed to more challenges in their study (Hensley et al., 2015; Richards et al., 2013), in which they can also enhance their self-regulated strategies (Bonanno, 2004; Luthans, Vogelgesang, et al., 2006; Rattray, 2016) to cope with future setbacks. For instance, Frank (beginning of this section) reported how he attuned to his own pace of learning by making small steps while making improvement in his study, reflecting his effort to regulate and monitor his progress of study.

To sum up, academic resilience was reflected in respondents' recollection as they recalled their determination and efforts to overcome setbacks and bounce back from them to stay engaged in their study. They also shared how they positively appraised and made sense of some seemingly undesirable circumstances (e.g. unsatisfactory results) to enhance their coping strategies for handling setbacks, strengthening their academic resilience to cope with future challenges in their study. Respondents were also able to recognise and articulate their negative emotional experiences without staying there, rather, they diverted their energy to reflect on their effort and ability invested in their previous academic tasks (e.g. assignments) in order to make improvement for the coming ones. This determination and effort of reflecting and monitoring one's progress in study are also presented in Theme Three illustrating self-regulating learning (Section 8.1.2), which involves students' strategy use and their regulation of thoughts and emotions in order to achieve their academic goals.

7.1.3.3 Self-efficacy

Self-efficacy involves students' self-perceived ability to perform and succeed in accomplishing academic tasks (Bandura, 2008; Luthans, Youssef, et al., 2007; Robbins et al., 2004) and it is found to promote academic engagement in university students (Chang & Chien, 2015; Galla et al., 2014; Vera et al., 2014). In the present study, self-efficacy was reflected in the experiences of respondents in two ways, with the first

one focusing on their own successful experiences and the second involving observation of peer performance. Clara, Heather and Frank reported their increased self-efficacy to accomplish the future academic tasks when they related their satisfactory academic results to their own successful experiences.

> "… those successful experiences, like receiving better marks [from the assignments] empowered my belief that I am able to handle those modules and I can continue to achieve good results." *(Clara)*

Heather also reflected how seeing her academic results being improved has helped enhancing her perceived ability in study when she compared her academic results over two terms.

> "I had poor results in the first term and I was really worried if I could make it through my study. However, in the second term, I received an 'A' in an assignment … then I realised that, oh I could do it and I knew I was able to achieve well if I work hard." *(Heather)*

Frank also talked about reflecting on his academic results in the previous two terms reminded him that he was capable of achieving well academically that he managed to overcome obstacles and challenges to reach his goals. These instances reported by respondents support how self-efficacy could be developed through mastery experiences and academic success (Chang & Chien, 2015; Galla et al., 2014; Schunk & Mullen, 2012; Vera et al., 2014) that when students have succeeded in accomplishing academic tasks (e.g. achieving good results in assignments), they perceive themselves as being able to accomplish a similar task in the future. Another way of enhancing students' self-efficacy is related to social modelling (Bandura, 2008, 2012), when students' perceived ability is enhanced after observing how their peers accomplished some academic tasks. This impact of social modelling was reflected in instances where respondents reported using their peers' accomplishments to convince themselves being able to complete the same academic tasks as good as their peers who were similar to them. Respondents like Amy, Emma and Ivana talked about

how they took reference to their peers' performance, thinking that their fellow classmates were just like them, "If they could accomplish those tasks and achieve good result, why couldn't I do it?" To sum up, self-efficacy in respondents involve self-evaluation of their perceived abilities with reference to their own successful experience or peers' performance, i.e. social modelling, which helped respondents to have confidence to achieve their academic goals and to continue investing their effort in the academic work.

7.1.3.4 Optimism

Optimism in the PsyCap framework comprises two components, one of which is a positive outcome expectancy (Carver & Scheier, 2002), as respondents recalled their expectations that good things (e.g. better academic results) were likely to happen again in the future despite the unsatisfactory results they received. Such positive expectancy helped them persist and work hard towards their goals in their study. Another component of PsyCap optimism is concerned with a positive explanatory style (Seligman, 2006), in which students tend to attribute positive events to internal, permanent and pervasive causes, while interpreting negative events, such as academic setbacks, to external, temporary and situation-specific circumstances. In academic settings, the optimistic students with a positive explanatory style tend to believe academic success is likely to happen again across different contexts, such as in different modules they take.

Both components of optimism were reflected in respondents' experiences as Daisy, Heather and Frank recalled how they interpreted and coped with academic setbacks (i.e. unsatisfactory results). Daisy regarded that

> "…not achieving well in one module doesn't mean it will be the same for other modules... you know… it doesn't mean it's all over, I have to move on to work better in other modules".
> *(Daisy)*

Heather also expressed traces of optimism towards her study and believed she could achieve a better result next time despite her unsatisfactory result in one module.

> "I can work harder to achieve a grade 'A' in another module despite I got a grade C in this module."
> *(Heather)*

In times of unsatisfactory results, Frank reported that he was not frustrated despite not achieving well in some modules because he thought he would be able to do better in some other modules. He reiterated that,

> "I am not incompetent to study at all, perhaps those modules just did not fit me, I could achieve well [in other modules] as long as I am willing to work hard"
> *(Frank)*

All three respondents reflected an expectancy of a positive outcome despite their unsatisfactory results and they believed they would achieve better results in the future, also reflecting a determination to pursue better academic achievement. At the same time, their experiences also reflected a positive explanatory style, for instance, Heather interpreted the unsatisfactory result in one module as temporary and situational, whereas Frank attributed his unsatisfactory results to external circumstances that those modules were not suitable for him, and all of them thought they could achieve better results in other modules. Furthermore, these respondents also reflect their tendency to interpret academic setbacks as challenges and problems, which could be resolved rather than threats, supporting prior findings which found that PsyCap optimism was associated with more active coping to solve problems (Nurttila et al., 2015). Another study also revealed that university students reporting higher levels of optimism experienced less stress in their study (Nes & Segerstrom, 2006), supporting Frank's perception of his results when recalling himself "never got frustrated" and believing in his competency in achieving academically.

7.1.4 Uneven representation of PsyCap components

Among the PsyCap components, it seems that they were not equally represented in respondents' recollections, specifically respondents seem to recall more scenarios reflecting their hope and academic resilience than the other two components of self-efficacy and optimism. This could be related to the features of hope and academic resilience, which are associated with a determination to achieve academic goals with the use of multiple pathways and to reflect on and bounce back from setbacks, and these are more commonly associated with actual behaviours. Thus, it is possible that respondents might tend to retrieve instances involving those actual behaviours of making plans and using strategies more readily (i.e. resembling hope and academic resilience) than self-efficacy and optimism, which are more inclined to internal beliefs in one's ability and expectancy to accomplish academic tasks and to interpret academic results.

In fact, taking a closer look at respondents' recollections, self-efficacy and optimism were sometimes embedded in instances reflecting hope and academic resilience, even though implicitly. For instance, academic resilience and self-efficacy were manifested when David and George recalled themselves taking up more challenges in their study (Section 7.1.3.2), as they believed in their competencies to achieve those challenging goals, i.e. self-efficacy, students tend to set challenging academic goals because of their self-perceived ability. Furthermore, studies also showed that self-efficacy and goal-setting (a characteristic of hope) contributed to academic resilience (Morton, Mergler, & Boman, 2013), which implied that the qualities of self-efficacy and hope could possibly be embedded in the academically resilient students as they bounced back from setbacks and challenges in their study. In fact, researchers argued that students with high levels of academic resilience tend to draw on other PsyCap resources of hope, self-efficacy and optimism and used them as different pathways to

bounce back from adversity (Cavazos et al., 2010; Luthans, Vogelgesang, et al., 2006). Therefore, respondents who reflected academic resilience in their experiences could possibly utilise other PsyCap components of hope, self-efficacy and optimism despite they were not explicitly mentioned.

Another possibility explaining the fewer reported instances of self-efficacy and optimism could be related to the background and characteristics of the respondents in the present study, who were academically less competent that they might be impacted by their previous failures from the high-stakes public examination (discussed in Section 1.4.1). Self-efficacy is concerned with a self-evaluation of one's perceived ability to accomplish academic tasks and it is influenced by prior successful experiences (Bandura, 2008), whereas optimism involves an expectancy of positive outcomes (Carver & Scheier, 2002). Thus, respondents in the present study, being impacted by prior setbacks, might have a tendency to report more experiences about overcoming difficulties and persistence, which possibly happen more frequently in their path of study, resembling features of hope and academic resilience, rather than those experiences reflecting self-efficacy and optimism. Despite their lesser representation in the interview data, self-efficacy and optimism were both represented in the 20 respondents' survey data, reporting means scores of 4.08 and 3.26 for the scales of Self-efficacy and Optimism respectively from a 5-point Likert scale. This supports the importance of using a combination of a survey and interviews to investigate students' academic engagement and PsyCap, so that the data collected from both strands complement each other to shed light on the interpretation of the findings.

To sum up, the findings presented in this sub-theme illustrated how PsyCap has contributed to promote respondents' engagement in study as they recalled employment of multiple pathways to sustain their effort and to persist in study

despite the difficulties and academic setbacks encountered. Respondents reflecting academically resilience particularly used their positive self-appraisals of the circumstances they encountered and transformed academic setbacks to strengthen their coping strategies for future challenges. All these experiences add finer detail to the positive link identified between PsyCap and academic engagement (Fati et al., 2019; Luthans et al., 2016,2019; Martínez et al., 2019; Siu et al., 2014), particularly the underlying processes of how respondents utilise their PsyCap to promote their effort in study.

7.1.5 Inter-relatedness of the affective elements and chapter summary

In this second theme, I illustrated how various elements in the affective dimension of learning were inter-related to each other as represented in respondents' experiences of engagement. I presented how respondents experienced and interpreted their study-related emotions, as they reported instances of positive emotional experiences associated with knowledge acquisition, particularly resulting from their encounters with lecturers and peers. I then discussed the role of students' interest in learning as respondents linked their willingness to invest effort in their study with their interest in a particular subject matter or a topic in the subject, which is enhanced by their enthusiastic lecturers. They also talked about some factors, such as exposure to new knowledge content and a sense of challenge, have enhanced their interest in the subject matter, which then promoted their engagement in study. Furthermore, the role of PsyCap in fostering students' academic engagement of students was supported by respondents' recollection as they described the processes of how those psychological resources were strengthened, resulting from their effort and persistence to overcome the challenges and setbacks in the course of study. Finally, respondents' experiences captured in this present theme supports the inter-relationship between the affective elements, as they were often represented in the

engagement experience in conjunction with each other and subsequently enhanced students' academic engagement. For instance, academic resilience (PsyCap component) appeared to moderate the influence of negative emotions on respondents as they faced academic setbacks and challenges, helping them to acknowledge their emotions while bouncing back from unsatisfactory results (discussed in Section 6.3.3.2). These findings provide empirical support for the need to incorporate these affective elements in the proposed integrative framework (see Figure 7.2) encapsulating the affective dimension of learning in the present study.

Chapter 8

Theme Three: Cognitive processes of academic engagement

8.1 Theme Three: Cognitive processes of academic engagement

Theme Three captures the cognitive processes of academic engagement, reflected in 16 out of 20 respondents' recollections, as they recalled the effort they expended to understand the subject content in a greater depth and their attempt to monitor their study progress. Respondents' experiences are broadly organised into two sub-themes (presented below and also in *Figure 8.1*), with the first sub-theme involves respondents' intention to deepen their understanding of the course materials using various cognitive strategies, reflecting features of a deep approach to learning. The second sub-theme focuses on respondents' attempts to monitor their study progress as they recalled employing regulatory strategies to achieve their academic goals, resembling characteristics of self-regulated learners.

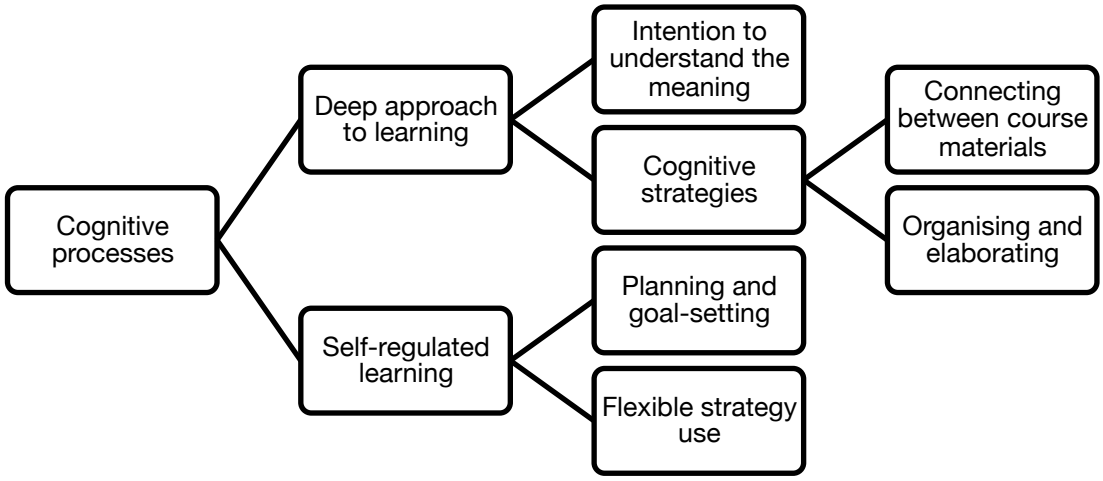


Figure 8.1. Theme Three and its sub-themes capturing the cognitive processes associated with experiences of academic engagement.

Students' adoption of a deep approach to learning and the use of self-regulatory strategies are both indicative of the cognitive dimension of academic engagement (Fredricks, Blumenfeld, & Paris, 2004; Wang, Willett, & Eccles, 2011), which is not easily measured and observed (Appleton et al., 2006; Barlow et al., 2020; Greene, 2015), however reflected in such behaviours as using cognitive strategies to deepen their learning and manage their study progress. Despite overlaps relating to the strategy use between the two sub-themes, they represent distinctive aspects of the cognitive dimension of academic engagement that a deep approach to learning emphasises **an intention to understand the complex concepts**, usually facilitated by the use of cognitive strategies. As for self-regulated learning, it is more inclined to a determination expressed in students' proactive monitoring of their study progress, typically involving the use of regulatory strategies, such as making plans, time management and self-reflection to persist in academic work. Their differentiation is further elaborated as I present quotes from respondents reflecting features of the two sub-themes later in the following sections.

8.1.1 Intention and strategies to deepen understanding of course content

Respondents recalled their intention to deepen their understanding of the course content beyond the surface level, reflecting some features of students who take a deep approach to learning (Entwistle & Peterson, 2004; McCune & Entwistle, 2011). These students are typically driven by an intrinsic motivation to understand the meaning of the course materials beyond the course requirements, which sustains their determination to invest their time and effort in their study (Entwistle, 2009; McCune & Entwistle, 2011). Specifically, students adopting a deep approach to learning tend to see different aspects of the course materials as a broad and integrated picture rather than unrelated pieces of information. With a continued desire to look for meaning of the course materials, these students are able to develop different cognitive

strategies to look for principles and patterns underlying the subject content, such as looking for relationships between ideas and connecting new knowledge with their previous knowledge (Entwistle & Peterson, 2004).

8.1.1.1 An intention and willingness to seek understanding

Respondents' intention and effort to pursue deep understanding is supported by Ashwin (2014), who argues that "it is the critical relationships that students develop with knowledge that makes a university degree a higher form of education"(p. 123). Indeed, some respondents reported instances of engagement where they wanted to learn more about the course materials beyond the surface level and they were eager to see the underlying principles connecting parts of course materials. Gloria expressed that she "did not feel comfortable to read the lecture notes at face value" that she described that uncomfortable feeling by relating it to a metaphor of licking the surface of a candy briefly, without knowing what it actually tastes like before it is being taken away from her. She regarded herself as having a "strong curiosity and eagerness to know the reasons behind something" and explained it with her example of learning a theory, that she wished to understand the relationship between the components of a theory and how the theory was formulated. In doing so, she reported using the library facility and immersing herself for long time to look for additional information to enhance her understanding of the instructional materials.

> "I looked up some particular theories from the books and added some relevant ideas to my lecture notes as the supplementary information…it was like filling up myself with something…I felt enjoyable and involved in learning that I even lost track of time." *(Gloria)*

The enjoyment Gloria experienced as she immersed in the process of knowledge acquisition and meaning-seeking resembled an optimal experience called "flow"(Csikszentmihalyi, 1990, 1997), the experience of a deep sense of enjoyment when individuals are intensely focused on tasks with clear goals that they even lose

the awareness of time. The flow experience is arguably conducive to students' engagement in study because it brings an integration of thoughts, intentions and feelings together as individuals' energy are focused on their goal. While the flow experience is a dynamic process instead of a static one, researchers argued that students after experiencing a flow episode in their study, they develop an anticipation of re-experiencing that again (Buck, Carr, & Robertson, 2008; Liljedahl, 2018). Thus, flow experience is considered as an affective aspect of engagement itself and it also promotes further engagement of students. Gloria's enjoyment and satisfaction after deepening her knowledge with the immersion of energy and time signify "flow", as an affective aspect of engagement, is closely associate with cognitive processes of seeking understanding,.

George also reported his willingness to seek further information in the subject matter despite difficult course materials. He reported his choice to work on a challenging topic for his assignment as he expended his effort for information search and comprehension of the course materials to prepare for her assignment.

> "The concepts were quite difficult that I could not make any sense of them at first even after reading them over and over again. It was a very tough process of comprehending those information, however, I felt satisfied as I felt like I was researching for some new knowledge, it's very memorable".
> *(George)*

Slightly different from Gloria, who seemed to report a strong desire to understanding the subject matter in great depth driven by her intrinsic motivation, George seemed to link his search for understanding with a need to fulfil the assessment requirement, which is also commonly found in the recollections of other respondents. For instance, Faye reported her tendency to read beyond the designated course materials.

> "Although the lecturer told us it's not necessary to read all the suggested articles listed in the course outline, I tried to read them all as I wanted to know more about the topics to have a better idea in choosing a topic to work on my assignment".
> *(Faye)*

Faye's reported extra effort spent on the reading lists can be related to her curiosity to learn more about the subject matter, while she also explicated her effort as a need to work on her assignment. George and Faye both recalled their effort to search for in-depth understanding of the course materials in the premise of completing the required assessment tasks for the modules. Nevertheless, they also reported a choice over challenges/difficulties than routines when being given an autonomy, reflecting features of self-efficacy and academic resilience (see Section 7.1.3), reinforcing the linkage between cognitive dimensions of engagement and PsyCap. The instrumental effort reported by George and Faye also reflects features of self-regulated learners, who are determined to complete academic tasks and monitor their study progress and this will be discussed in the next sub-theme as I present engagement experiences reflecting self-regulated learning (See Section 8.1.2).

8.1.1.2 Use of cognitive strategies

Students who adopt a deep approach to learning usually develop their capabilities to use an array of cognitive strategies to fulfil their intention of in-depth understanding of the course materials (Entwistle & Peterson, 2004). Respondents' recollections of engagement experiences involve their attempts to interpret the course content, which are broadly categorised into two sets of cognitive strategies, as they report making connections between course materials and elaborating their thoughts further through organising the text.

(a) Making connections in course content

The first set of cognitive strategies involves respondents' attempts to make connections between new knowledge and their personal experience to consolidate their understanding of the subject content. Some respondents like Amy and Billy talked about how they applied the theories they have learned to their daily life.

> "We (Amy and her peers) discussed among ourselves when we observed how some of the course materials, such as racism or feminism, were reflected in some films, TV commercials and pop music."
> *(Amy)*

Billy also reported he used the psychology theories to interpret life events in his personal life and to strengthen his knowledge, so that he could "understand more about the causes influencing my decision-making process". Daisy talked about utilising her part-time work experience in an advertising agency to contextualise her mastery of the course content in the module of "Public Relations and Advertising". She explained that the work experience promoted her comprehension of the concepts of event management with an actual work setting where she worked as an assistant in the planning and logistics of public relations events. Recollections of respondents indicate their intention and effort to link their subject knowledge with their personal experience (e.g. application of theories into personal life by Amy and Billy) or using their existing experience (e.g. Daisy's part-time job) to add in richness and relevance to the subject content.

Another way respondents attempted to make connections between new and previous knowledge is by retrieving their prior knowledge to make sense of the new ones (Chi et al., 2018). When having difficulty in comprehending the course content, Lucy reported retrieving her previous knowledge to clarify her thoughts, "I referred to the textbooks from my secondary school as I remembered some of the course content overlapped with those in my current programme" *(Lucy)*. Eddie explained that as he "remembered some similar content learned in another module" and used those to help him comprehend the same concepts in a new module. Bella talked about her attempts to integrate the knowledge she acquired from modules of different subject areas and used them to make sense of the new course content by weaving the common threads between the topics. For instance, she talked about making

connections between the two modules of "Interpersonal Communications" and "Information Technology" to think about how the role of the technological advancement of digital devices has influenced the styles of interpersonal communication in contemporary life. She used a metaphor of a jigsaw puzzle to describe this inter-disciplinary integration of knowledge as if she "puts the various pieces of the puzzle together to form a complete picture." *(Bella).* Bella's strategy use resembled how students adopting a deep approach to learning intended to see the relations between topics and across subject areas as they look closely into the course content to see how ideas fit with each other (Chi et al., 2018). Both Lucy and Bella reflected their ability to use the accumulated knowledge to further their understanding of the course content that Lucy was able to recognise and retrieve relevant knowledge from her past experience, whereas Bella made an effort to integrate knowledge she acquired from different subject areas and viewed them as a broader picture instead of fragmented pieces of information. To sum up, the desire to see connections between various parts of the subject matter can be achieved in various ways as respondents reported their cognitive strategies to connect their personal experience and prior knowledge with the new content presented to them.

(b) Elaborating and organising

The second set of cognitive strategies involves how respondents elaborated their thoughts and organised the course materials to develop further understanding of the subject matter. Bella reported revisiting the notes she took and asking herself questions to see if she could make sense of the ideas as a way to check her understanding of the course materials. Kelly reported using mind-maps to "develop more ideas about the course materials", while George and Lucy talked about organising the course materials in own preferred way to facilitate comprehension of the knowledge. George reported his habit to interpret the connection between course

materials "in terms of cause-and-effect relationship" and recalled summarising and organising his own set of notes with causes and consequences to explain the concepts. Lucy recalled using visual images to arrange her notes to facilitate her understanding of some concepts.

> "We studied the anatomy of an animal, I drew a picture of it and wrote down its associated adaptation to help me understand better. I feel like creating my own textbook."
> *(Lucy)*

When using those elaborating and organising strategies, students are required to acquire understanding of the course materials and use that understanding to develop ideas in order to create their own set of notes (Trigwell, 2005), reflecting their willingness to invest effort continuously to make sense of the knowledge as well as their capability to see the connections between different parts of the course materials.. Emma recalled a time when she tried to compare and interpret the impact of two historical incidents and justified her stance with evidence from the text, partly because she wanted to make sense of the course materials in a more meaningful way, while she also used this strategy to prepare for the examination. Emma continued to explain her cognitive strategy was helpful to ease her anxiety for examination (experience described below), in line with findings revealing students increased their effort spent in academic work to manage their test-anxiety in order to avoid failure in their study (Chi & Wylie, 2014).

> "As there is a time limit in the examination, I find it quite frightening to start thinking about my personal views [of those historical incidents] only during the examination. Thus, writing down my views own with justifications in advance helped me express my ideas more eloquently [during the examination] and it's also less frightening".
> *(Emma)*

Here, Emma's strategy use is two-fold, first, she reflected critical thinking by justifying her interpretation of the course materials with evidence from the text, resembling some typical features of a deep approach to learning. Second, her

strategy use also revealed her alertness to the examination format of the subject as she prepared herself to answer similar types of questions, i.e. comparing similar historical incidents and justifying her arguments with evidence. Emma's alertness to the assessment requirement and her sensitivity to regulate her anxiety towards examination also reflected some features of self-regulated learners, who are keen to monitor their progress of learning (see Section 8.1.2). Therefore, her experience is an example demonstrating that the deep approach to learning and self-regulated learning are closely related to each other, however distinctive from each other.

8.1.2 Self-regulatory strategy use to monitor progress of study

Another strand of cognitive processes reported by respondents involves their strategy use relating to planning and resource management to monitor and persist in their study, reflecting the characteristics of self-regulated learners. Researchers described self-regulated learning as an active and constructive process in which students attempt to control and manage complex learning activities, involving the employment of strategies to regulate their cognition, motivations and behaviours towards their goals (Bryson & Hand, 2007). Effective self-regulatory students are able to select and employ a range of strategies to meet the requirements of specific academic tasks and contexts (Kauffman, 2004; Pintrich, 2004; Zimmerman, 2000, 2008) and some of those strategies were reported in respondents' engagement experiences.

8.1.2.1 Setting goals and making plans

To monitor their progress of study, some respondents recalled how they set goals and made plans for their study to regulate their thoughts, efforts, motivation and emotions. Daisy reported that making a plan for her study helped her stay calm and more ready to work on the assignment, contrasting to her previous experience when she was anxious and not satisfied with quality of assignment, having to rush through the deadlines without planning ahead. Other respondents like Heather and Amy

recalled their planning in more detail and how they execute those plans to develop ideas in their study. Heather made plans according to her awareness of the requirements of her summative assessment on script-writing for a film, which consisted of a number of short pieces of formative assessments, such as an outline of the story and a scene of the story, adding up to the full script for the film, i.e. the final assignment.

> "I spent much time to work on the outline as it was the most difficult and crucial task to do…once I got it (the outline) done, I would have the skeleton ready, then I could fill in detail of the story"
> *(Heather)*

While Heather reported how she made plan to facilitate her development of ideas, Amy described the detailed steps she took to prepare herself before working on an assignment, which helped her achieve a satisfactory result eventually.

> "I skimmed through the introduction and conclusion of the literature, [then] I started to plan for the structure and work on a brief outline for my assignment before actually working on it."
> *(Amy)*

She also reported being aware of the clashing deadlines for multiple assignments in the same week, she managed to set goals and do careful planning relating to the tasks she had to do accordingly. In doing do, she could space out the planned tasks over the week without stressing herself to squeeze time to complete all the tasks in a rush. With a detailed plan in place, she reported that she was able to manage her time well, invest enough time to "learn about the subject content thoroughly" and make good use of time to work on the assignment, and finally she achieved a good result for the assignment. It seems that both Heather and Amy were aware that they needed to develop some effective ways to manage their academic tasks by breaking those tasks into smaller units to monitor their progress along the way. Their efforts and strategies of setting goals and making plans reflect some characteristics of self-regulated learners, who monitor their thoughts, actions and emotions to make

progress and achieve goals in study (Zimmerman, 2000, 2008).

While Amy reported executing and following through her study plan, Emma, on the contrary, confessed that she was not able to stick to the schedule planned, but kept postponing the finishing dates of the tasks. Despite that, she regarded making plans for her study was useful that she took reference to date and tasks she planned to monitor her progress amid her procrastination. Recognising her tendency to procrastinate ("I knew I must procrastinate"), Emma, when making her plan, allowed more time as a buffer to complete her assignment. When she procrastinated, she reported using her anxiety associated with a sense of urgency and the worry of getting an unsatisfactory result, in order to shift her focus back to the tasks and remind herself to work on the assignment with extra caution.

> "After procrastinating, I knew my time was running short, so I worked on the assignment with great caution and organised my thoughts logically before turning my ideas into words. I warned myself that if I did not think thoroughly before writing, I would end up in receiving a grade D for my assignment."
> *(Emma)*
> [Note: Grade D is a bare pass, very undesirable for students in Harmony University]

On the other hand, Heather and Faye reported evaluating their previous performance of unsatisfactory results and noted some areas they could learn from those results in order to make improvement for the future assignments. Faye elaborated some tasks she would do to guide herself to make adjustment in her strategies for the coming assignments.

> "I would do a lot of preparation work and I revisited the content to see what improvement I can make for the coming quizzes or assignments. For example, I will write down some English vocabularies and practise my writing at home".
> *(Faye)*

Faye's effort of monitoring her progress in study support how self-regulated learners are capable of developing effective strategies with detailed plans and steps to achieve their goals. Her experience also reflected her academic resilience (discussed in

Section 7.1.3.2) as she recalled how she developed different pathways to persist in study and to overcome their academic setbacks instead of giving up.

Regardless of how consistent respondents have followed through their plans and schedules, e.g. Amy and Emma, they expressed an initiative and flexibility of self-regulated learners who are determined to achieve their academic goals by making necessary adjustments to monitor their progress of study. Their experiences resonate with the processes of self-regulated learning, which consists of three key phases of forethought, performance and self-evaluation (Pintrich, 2004; Zimmerman, 2000, 2008) in which students are actively involved in managing their progress of study. The forethought phase involves setting goals and making plans for the study tasks before starting to work on them, like what Heather, Amy and Emma did to prepare themselves completing their assignments. Respondents recognised the importance of a well-planned time schedule with specific tasks (e.g. Amy's detailed plan with clear steps) and incorporated their pattern of work (e.g. Emma's tendency to procrastinate) when making plan to help them complete academic tasks. The next phrase concerning performance was associated with respondents' actual work and how they monitored their progress, such as Emma regulating her effort and emotions to refocus on her academic tasks after her procrastination. Finally, the last phase of self-evaluation was seen as respondents recalled how they evaluated their previous performance to adjust their study plans and effort for better results, such as Faye reflecting on her unsatisfactory result and her effort to adjust strategy use in order to improve her next assessment. Thus, self-regulated learning is a cyclic process taken place in the course of study during which respondents are characterised with a determination to achieve academic goals with strategy use, including planning and self-evaluation to monitor their progress of study.

8.1.2.2 Flexible strategy use to achieve goals

In addition to monitoring their progress of study, respondents also reported selecting and different cognitive strategies to match with the context and the requirements of the academic tasks. For instance, Alex compared his use of different strategies to approach the course materials when he had to tackle the examination and when he was simply interested to explore some topics in greater depths. For Alex, to meet the examination requirement, he made a list of questions and looked for answers from the notes to check his understanding of the concepts because he realised that was the usual requirements of the examination Harmony University. He further explained that his awareness of the assessment requirement, "as long as I can demonstrate my understanding of some concepts and elaborate them a bit with examples, I can get the marks" *(Alex)*. However, he reported using a different strategy when he was really interested in some topics of the subject and wanted to explore something new, which might not be presented in the instructional materials. Also making a list of questions, this time, Alex recalled that he would ask himself some questions which "I did not expect to find the answers from the notes directly", but spending more time to look for further information to explore those issues he was interested in greater depths. These two scenarios seemed to reflect subtle differences of how Alex approached the subject matter, yet they did reveal students like Alex, could be flexible select various strategy use to adapt to the requirement of the academic tasks and in achieving their goals.

Another respondent, Billy, explicated his goal of achieving good results and being strategic that he estimated the effort and time investing in revision in relation to the result he can possibly get. Instead of spending time to study all topics in the module, Billy emphasised himself as being selective that he focused on studying topics that would bring "good returns" of marks.

> "I skipped the very difficult topics because it takes so much time and effort to understand and remember the terms and meaning … It doesn't worth the time to earn the marks [and] I want to attain the highest marks with minimal time spent."
> *(Billy)*

On the contrary, Billy also gave up studying for the very easy topics and asserted his confidence that "I could handle them in the examination even I have not spent much time to study". He also recalled making predictions about the possibility of having some topics appearing in the multiple-choice questions instead of essay-type questions in the examination, thereby adjusting his revision strategy. "I have a 25% chance of getting a correct answer by selecting from 4 options, it is unlikely for me to fail the examination even I have not spent much time to study those topics". Billy's confidence in tackling the easier topics and the multiple-choice questions reflects his strategic planning and flexible strategy use, it also reflects his self-efficacy in those particular areas, supporting previous findings which revealed that self-efficacious students using more self-regulated strategies in their study (Dinther, Dochy, & Segers, 2011; Pintrich, 2004; Walker et al., 2006; Zimmerman, 2000).

Amy also reported adjusting her style of writing to accommodate the preference and expectations of her lecturers.

> "From my observation, some lecturers prefer a succinct writing style while some prefer more detailed elaboration in the writing. I just changed my own writing style to fit their preference, hoping to get a better mark".
> *(Amy)*

Both Billy and Amy commented on their strategies of fitting the assessment requirements, for instance Billy said that "I know it's not good, but time is limited and I wanted to get high marks" when referring to his strategy of being calculating and selective in revising for the examination. Amy expressed that she did not feel comfortable about altering her writing style to fit the preference of her lecturers, but she did that with the aim of achieving better marks. In brief, most respondents who

reported experiences reflecting self-regulated learning also displayed an orientation towards assessment as they recalled an awareness of the requirements of the specific academic tasks, e.g. assignments and examination. In doing so, they employed targeted regulating strategies to plan and monitor progress of study, while being flexible to make changes in their strategy use upon evaluating their previous experience in order to make respective improvement.

8.1.3 Chapter summary

To conclude, this current theme captured cognitive processes of academic engagement as respondents reported their intention for deeper learning, with the use of various cognitive strategies, e.g. making connections between new knowledge and previous experience as well as finding evidence in course materials to support their arguments. At the same time, recollections of respondents also reflected characteristics of self-regulated learners who were adaptive when employing strategies to regulate their effort and monitor their study progress, including making plans and selecting relevant strategies to fit the requirement of the respective academic tasks and contexts. Furthermore, some of the respondents' experiences are in line with some findings revealing that self-regulatory learners also reported higher levels of PsyCap, such as self-efficacy (Bozpolat, 2016; Ocak & Yamaç, 2013; Virtanen et al., 2013) and academic resilience (Artuch-Garde, González-Torres, de la Fuente, Vera, Fernández-Cabezas & López-García, 2017), reinforcing the positive linkage between cognitive dimension of academic engagement and PsyCap I discussed in the survey results in Chapter 5.

Chapter 9

Theme Four: Experiences of disengagement from study

9.1 Theme Four: Experiences of disengagement from study

Theme Four presents an opposite direction capturing instances that respondents considered themselves as being disengaged from their study, a contrast from the three preceding themes which focus on how respondents engaged in their study and the factors fostering such engagement. Despite the that fact that Chipchase et al. (2017) in their review suggest that there is yet to be an agreement on the conceptualisation of students' disengagement from study, researchers have argued that disengagement is more than the absence of engagement and that it involves passivity and withdrawal from study (Skinner et al., 2008, 2009), including some negative emotional experiences, such as frustration and boredom associated with the educational encounters. Other researchers described disengagement as a negative engagement, which is also multidimensional (Trowler, 2010) and susceptible to contextual influences across settings (Duffy & Elwood, 2013; Finn & Zimmer, 2012; Fredricks et al., 2004; Kahu, 2013; Lawson & Lawson, 2013; Wang & Degol, 2014). Respondents' recollections of their disengagement from study were represented in a range of behaviours, feelings and thoughts, such as drifted attention, experience of negative emotions (e.g. boredom and frustration), lack of interest and motivation, such that they invested less effort in their study. Their experiences seem to reflect a passive form of engagement and I will discuss in detail with the use of quotes from respondents. Nevertheless, respondents in the present study did not seem to report a complete withdrawal from their study, despite the thoughts of giving up. In the present theme, the role of lecturers, disinterest, peers and institutional practices (Figure 9.1) were reflected in respondents' recollections of disengagement and they

shed light on the current understanding of disengagement, which is less researched in the extant studies.

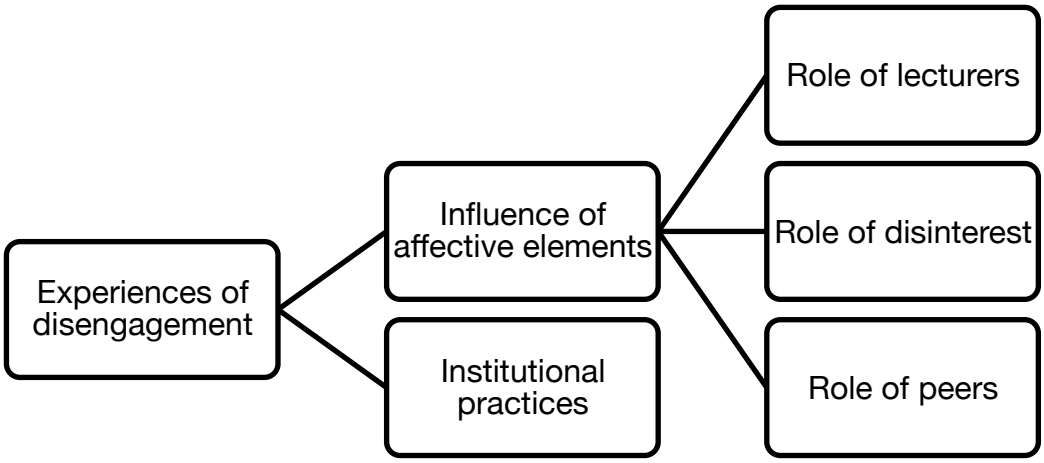


Figure 9.1. Theme Four and its sub-themes capturing the experiences of disengagement in study.

9.1.1 Influence of some affective elements on disengagement

While Theme Two in Chapter 7 captured the important role of the affective elements in promoting academic engagement of respondents, this present theme reflects how some of the affective elements contribute to respondents' disengagement from study, supporting the important role of the affective dimension of learning in influencing students' engagement in both positive and negative directions.

9.1.1.1 Role of lecturers

When respondents reported their experiences of disengagement from study, they regarded their lecturers as playing a role in discouraging their willingness to invest effort in their study, particularly as a result of lecturers' teaching delivery and how they responded to questions from respondents. Several respondents talked about how the quality of teaching, such as lecturers' tones of voice and clarity of presentation, unfavourably influenced their willingness to invest in learning, especially their concentration in lectures. Respondents commented their lecturers

who just read from the presentation slides using a monotone as demotivating them from paying attention in lectures. For instance, Clara commented her lecturer teaching in a "boring tone" had reduced her desire for learning, while Faye described herself detaching from paying attention in a class on Information Technology (IT), when her lecturer giving instructions in a flat tone.

> "I could not follow the instructions and procedures to work on something on the screen when he (the lecturer) spoke in such a boring tone … you know for those IT courses, once you missed one step, you missed the rest, so I just gave up and stopped paying attention at all".
> *(Faye)*

Jenny described her lecturer's teaching delivery as "problematic" that she found it hard to pay attention in class even when she wanted to. She commented that her lecturer did not seem to make proper use of the presentation tools and equipment to assist teaching.

> "He did not even use the microphone in a large lecture theatre … and he spoke in such a soft and low voice that we could not even hear what he said … we were sleepy that we could not really pay attention in class even I tried to. His PowerPoint file was quite weird, they were not proper slides, but displaying as a piece of A4 paper".
> *(Jenny)*

Those experiences recalled by respondents like Clara, Faye and Jenny were supported by findings revealing that lecturers speaking in monotones or weak voices were not able to keep the attention of students in the classroom (Servilha & da Costa, 2015), indicating quality of lecturers' presentation can influence students' engagement in study. These findings also support studies revealing students' participation in classroom activities (i.e. behavioural engagement) was negatively linked with their negative emotions, such as boredom and frustration (Ainley & Ainley, 2011; Dettmers et al., 2011; Kahu et al., 2015; Pekrun, Goetz, Daniels, Stupnisky, & Perry, 2010), reflected in respondents' decreased attention and effort as they experienced boredom in class. Indeed, boredom in study was found to link with lower levels in academic

engagement, including students' effort invested in study, their interest, cognitive strategy use as well as self-regulation (Kahu et al., 2015; Pekrun et al., 2010; Sharp et al., 2018; Tanaka & Murayama, 2014), supporting the link between the reported boredom in respondents and their disengagement from study. Sharp et al. (2018) also argued that the onset and influence of academic boredom was far from trivial that it should not be under-estimated, particularly how such academic boredom was found to associate with less effective learners whom were less likely to be interested in the subject matter and thus the effort to organise their course materials.

Sometimes, respondents associated lecturers' quality of teaching with their enthusiasm and their willingness to engage in further academic discussion with students, just like how Calvin and Gloria recalled their encounters with lecturers. Calvin expressed his dissatisfaction towards his lecturer, whom he regarded as lacking enthusiasm in teaching.

> "She just read word-by-word from the slides without further elaboration, I felt like she just wanted to finish the lecture and go, and I wondered what is the point for us to attend the lecture? Why don't we just read the textbooks and study by ourselves then?" *(Calvin)*

Calvin's dissatisfaction was also supported by findings suggesting that students disliked lecturers merely read from the presentation slides (Sharp et al, 2018), but adding more ideas and elaboration. He continued to elaborate his frustration and disappointment as he reached out to the same lecturer to discuss a topic he wanted to know more. Yet, instead of having a discussion, his lecturer told Calvin that "Oh! You don't need to know about that, it will not be tested in the examination". Calvin reported his surprise for his lecturers' reply and regarded his lecturer was too examination-oriented, who did not intend to promote students' interest or help them develop deep understanding in the subject matter. He explained that he was initially interested to learn about the differences between using two statistical

methods to analyse the same problem, yet, he admitted that he felt discouraged by his lecturer's response and lost his desire to find out more about his initial queries. Calvin was joined by Gloria, who also reported feeling discouraged after an encounter with her lecturer. She recalled a scenario when she raised some questions during lectures, hoping to know more about the presented course materials, however, instead of responding to her questions,
her lecturer commented that there was not sufficient time to talk about those questions during class.

> "I felt so discouraged that I did not see any point for me to pay attention for the rest of the lecture … I felt so empty and did not feel like learning at all and I stop paying much attention since then". *(Gloria)*

That experience was a contrast to the excitement Gloria reported as she recalled an academic discussion with her another lecturer, who spent time to discuss issues relating to the subject matter with Gloria, inspired her to reflect on the course materials and some personal values, and reverted to her unanswered questions from the last lecture (See Section 6.3.1). In fact, Calvin's experience also reflects a divergence from his encounters with a lecturer whom was encouraging and responsive to his questions and desire to explore the subject matter in more depth (See Section 6.3.2.2). Experiences of Gloria and Calvin indicate that respondents might have certain expectations towards their lecturers, such as their willingness and availability to engage in discussion with students, thus when those expectations are not met, students may express some negative emotions e.g. frustration and discouragement, which then result in a reduced eagerness to seek further understanding of the subject matter. Their experiences are supported by studies arguing that students' interest to discover new things can be disturbed by negative experiences, which hinder their further intention to explore novel knowledge and possibly result in a regressing or disappearing interest in students (Hidi, 2006;

Schlöglmann, 2005). Taking a closer look at the scenarios recalled by Gloria and Calvin, in addition to the frustration and discouragement reported, it seems that they have also implicitly expressed their needs to be acknowledged and seen by their lecturers that the two respondents would like to have a discussion with their lecturers, regardless whether they could get the answers to their queries. Perhaps how their lecturers responded to respondents' queries is equally important to what they have said or done, for instance, Gloria and Calvin might not have felt so frustrated and discouraged if their lecturers have attended to their needs and discussed the issues in the subject matter with them, such as following up Gloria's questions after class.

Another respondent, Bella, also reported a scenario during which she attempted to seek further verbal feedback from her lecturer for a marked assignment, hoping to get some specific advice and she also asked for samples of essays as reference to work on her later assignments.

> "The lecturer was quite rude, instead of giving us advice to make improvement on our next assignment, she said, 'You guys should not ask for any samples of work, every assignment is different'. *(Bella)*

Bella continued to report that she felt offended and intimidated by her lecturer's response that she had difficulty to concentrate during class and she did not even dare to look at her lecturer after that encounter. Bella's perception on her lecturer after the dismissive encounter is supported by studies revealing the negative impact of unapproachable lecturers to students' engagement (Plett et al., 2014), particularly when lecturers communicated to students that they should have already understood some concepts, leaving students reluctant to ask questions even they do not understand those concepts. During the interview, Bella reflected that she pondered if it was inappropriate for her to ask her lecturer for some samples of essays for reference, considered she was in higher education but not in secondary school.

Nevertheless, she reiterated that it was the attitude how her lecturer responded made her feel offended and intimidated, rather than getting some samples of essays or not. She talked about how her lecturer could have responded better with a non-judgmental attitude by explaining that samples of essay might not be appropriate for the module, and offered a discussion with students to talk about proper styles and skills to write the essay. Her thoughts echo with the importance of lecturers' attributes such as being encouraging, respectful and willing to attend to students' academic needs, in order to create a positive teaching and learning environment (Anderson & Carta-falsa, 2002; Devlin & O'Shea, 2012; Dirkx, 2001; Hagenauer & Volet, 2014; Moore & Kuol, 2007b), which could contribute students' academic engagement.

These lecturer-student encounters reported by respondents reflect the implicit needs and expectations of respondents towards the role of their lecturers, which seem to involve some affective responses which are not easily observed from students' behaviours and their words, possibly related to some power relations that students may not feel comfortable to express those feelings to their lecturers. Findings from respondents' experiences of disengagement shed light on the important role for lecturers to be sensitive, approachable and willing to show their care and to and encouragement to address students' academic needs by creating a safe and encouraging environment for students (Anderson & Carta-falsa, 2002; Denzine & Pulos, 2000; Osinski & Hernández, 2013; Stephen et al., 2008), which could possibly influence students' interest and subsequent engagement in study. All these instances capturing disengagement also reflect that academic engagement of students is fluid rather than static that students may not report the same levels of engagement across all contexts. Instead, their engagement tends to be dynamic and situational, which is susceptible to contextual influences (Finn & Zimmer, 2012; Fredricks et al., 2004;

Fredricks, Wang, et al., 2016; Kahu et al., 2013; Lawson & Lawson, 2013; Wang & Degol, 2014), such as resulting from students' interest across modules/subject matter and the quality of their interactions with lecturers and peers.

9.1.1.2 Role of disinterest

Another cluster of disengagement experiences reflects respondents' disinterest in the subject matter, particularly the general education (GE) modules, such as Statistics and Information Technology (IT), which were compulsory modules for all students in Harmony University regardless of their chosen disciplines of study. Several respondents reported their unwillingness to invest effort in those GE modules because of their disinterest. Faye reported that "I did not pay attention at all as I did not see there is any relevance to my programme" and Amy reported, "I don't want to study those course content, I am not interested in knowing about them" as they talked about not having interest in studying the IT module. Other respondents like Eddie, Emma and Lucy elaborated more on their lack of interest in the subject areas which they found themselves not capable in comprehending, reflecting how academic boredom was positively linked with level with difficulty, while negatively linked with expectancy and perceived utility of the subject matter (Tanaka, 2014). Eddie recalled himself disengaging from the module of Statistics, "I was not interested in Statistics …those concepts were so difficult and I felt really painful to study them" *(Eddie).* Emma reported that her disinterest in another GE module relating to health containing a lot of biology concepts, which reminded her of the poor results she had in biology in her secondary school days, thus influencing her perceived abilities in comprehending the health module. "It's natural for us to be more interested in something we are more competent in", Emma added. She also reported feeling bored in a business module which she was not interested in that she recalled herself sitting at the back of the classroom right next to the door because she

always wanted to "leave the classroom as soon as the lecture is finished". Lucy also shared a similar view when recalling her disengagement in a module on business. As a Science student, she said that she was not interested in business at all, but it was a compulsory module for her.

> "I have never studied business before and I was not interested in it, I just didn't like it and I had no motivation to pay attention at all." *(Lucy)*

Respondents' experiences reveal a linkage between students' disinterest and their perceived ability in in the subject matter, such as how Eddie reporting his disinterest in understanding the difficult concepts in statistics and Emma associating her disinterest in those biology concepts to her prior poor results in biology, reflecting the perceived ability is influenced by respondents' prior experiences. Respondents also report their disinterest in conjunction with the lack of personal relevance in the subject matter, like what Faye recalled her disinterest in the IT module which she did not much relevance to her discipline of study. Frank also commented that he questioned the need for studying Statistics as he could not associate any personal relevance of statistics to his life, then he suggested that if the lecturer could show students the utility of statistics in daily life, perhaps he would develop more interest in the module, supporting findings from previous studies (Harackiewicz et al., 2016). Respondents' comments on the module of Statistics resemble findings on students' reactions towards their study in mathematics, who expressed negative emotions like frustration, boredom and anxiety, particularly when they perceived themselves as not capable to understand the subject (Fredricks, Wang et al., 2016), like what Eddie recalled when he was taking the module of Statistics ("really painful"). This shed light on the possibility of investigating patterns of students' engagement across different disciplines of study, which I will elaborate further in Chapter 10.

Furthermore, some other respondents attributed their disinterest to the repetitive course content they have learned, like Ivana, an UG Year 4 student reported how she reduced effort expending in her study when she felt like she was studying the same content again.

> "I took the same module two years ago and I have already mastered the knowledge about ecology ... [I found] the course materials too easy that I lost my interest to pay attention in the lecture s… the topics were so similar and familiar to me". *(Ivana)*

She continued to explain that she would invest more effort in study when she came across new knowledge, particularly if the course content is difficult because she wanted to make sure she was able to catch up with the new content. Here, Ivana links her diminished interest in the subject matter to the repetitive course content, which was also reflected in the experience of Calvin, another Year 4 student taking another discipline of study, who also took a same module twice. He commented the content was too easy and he was just learning the basics, contrary to his expectation of learning some more advanced concepts in the subject matter. He expressed his frustration and confusion particularly when his lecturer asked them to complete some easy questions in worksheets in class. "So what's next after working on those easy questions? How can those help us learn?" *(Calvin).* These instances of disengagement of Ivana and Calvin, both as UG Year 4 students, were related to the curriculum design in Harmony University that some modules were overlapped in both AD and UG programmes. The design was initially planned to facilitate AD graduates transferring from other institutions to catch up with the study in Harmony University. UG students who completed their AD programme in Harmony University like Ivana and Calvin would have to study the modules with overlapping content, which seem reducing their interest to invest effort in their study. Their experiences were supported by findings suggesting how students disengaged

themselves from investing effort in study when they considered the course materials as either too easy or too difficult (Murray, Mitchell, Gale, Edwards, & Zyngier, 2004), indicating how students' engagement can be moderated by their perception on the level of difficulty of the course materials presented to them.

Indeed, respondents' experiences of frustration and boredom reflect the importance having matched level of challenge and skills in academic tasks in order to promote a "flow" experience, involving enjoyment and intense concentration in study (Csikszentmihalyi, 1990, 1997), i.e. positive engagement of study. Studies argued when the challenge of an academic task exceeds students' skills and abilities, e.g. Statistics for Eddie, biology topics for Emma and Business for Lucy, students are likely to report frustration in their study (Liljedahl, 2018). On the contrary, students tend to report boredom if their skills and abilities exceed the challenging associated with an academic task, such as how Ivana and Calvin responded to modules with repetitive content which they perceived as lack of challenge. These linkages has reinforced the affective aspects of disengagement experiences reported by respondents.

9.1.1.3 Role of peers

Next, respondents reported instances involving group work with peers, during which they have completed the academic tasks because of the deadlines, but not feeling themselves as engaging in the process. Their experiences resemble some forms of passive compliance in study (Murray, Mitchell, Gale, Edwards, & Zyngier, 2004), particularly when students were affectively disengaged, as reflected in the negative emotions recalled by the respondents. Frank and Bella both reported instances when their group members did not contribute to the group project, leaving them to complete the work alone. Frank reported, "I did not feel comfortable [and] I was not satisfied with the work". Bella recalled a lot of negative emotions in the process that

she felt "angry, anxious and helpless facing with the pressing deadline" when recalling how her group members did not contribute to a group presentation which was due on the next day.

> "I cried so badly [that] … I didn't learn anything, it was like working on something mechanically"
> *(Bella)*

Again, it is evident that respondents' disengagement experiences involve some negative emotions as they reported lack of contribution from group members who were supposed to work together for the group projects. Despite those emotions were expressed in different intensities between respondents, their recollections support that disengagement involves an affective aspect (Skinner et al., 2008, 2009), which can influence students' holistic experience regarding their engagement in study.

9.1.1.4 Summary of affective elements influencing disengagement

Findings discussed above reveal that disengagement of respondents from their study was influenced by such affective elements as the role of lecturers, respondents' interest in some modules and the role of peers, reinforcing the crucial role of the affective dimension of learning in influencing students' levels of engagement in study. Indeed, most experiences of disengagement reveal that respondents were affectively disengaged from their learning as they reported not being able to enjoy their study because of their lack of interest (e.g. Amy and Eddie) or feeling frustrated and discouraged without having the encounters they expected from lecturers when they were eager to know more deeply about the subject matter (e.g. Gloria and Calvin). Some of recollections of respondents involve instances manifesting that they have disengaged affectively from their study despite an effort to complete the assignments to meet the course requirement. For instance, Frank and Bella managed to complete the group work despite feeling angry, anxious and uncomfortable about the lack of contribution from their peers. From their recollections, it seems that

respondents viewed academic engagement as a holistic experience, involving positive emotional reactions such as enjoyment and interest (i.e. affective engagement) and a desire for deepened understanding of course materials (i.e. cognitive engagement), rather than merely completing the academic tasks as part of the course requirement, which they reported as a form of disengagement. Respondents' experiences indicate the important role of the affective and cognitive dimensions of academic engagement and support researchers arguing that "engagement is more than involvement or participation, it requires feelings and sense-making as well as activity (Harper & Quaye, 2009, p.5), supporting the need to understand the multiple dimensions of academic engagement, which I will come back for discussion in Chapter 10.

9.1.2 Institutional practices

Finally, some respondents also reported their disengagement being influenced by contextual factors relating to institutional practices, such as the curriculum structure and programme requirements. In Harmony University, all students have to complete some compulsory GE modules to fulfil their graduation requirement. For Top-up Undergraduate Degree students who were transferred from other institutions instead of completing their Associate Degree in Harmony University, they were required to complete all those GE modules within two years, in addition to the other modules required by their respective disciplines of study. Thus, those "new comers" had to manage a heavy study load within the two years of study, comparing to their fellows who have completed all those GE modules in their previous study of AD programmes in Harmony University. Jenny, who was a UG student transferring from another institution, complained about her study load as too heavy that it diminished her interest and effort in her study.

> "Can you believe that I had to take 8 modules in one term? It was simply impossible to handle that study load. I could only did the minimal work to get a pass, there was no way to do more … just attending all those lectures and submitting all the assignments almost killed me".
> *(Jenny)*

In Harmony University, the usual study load is taking 4 to 5 modules in each term, for AD students and UG students completing their AD study there. Thus, Jenny's study load of having to take 8 modules in a single term was a double of the usual one, despite that the GE modules required only a pass for Jenny and those students who transferred from other institutions. Jenny's experience is supported by findings revealing that heavy study load hindered university students' interest in the subject matter (Kahu et al., 2015; Mikkonen, Ruohoniemi, & Lindblom-ylänne, 2013) and it also reflected a passive compliance (Murray et al., 2004), involving students paying a minimal effort to fulfil the course requirement, instead of enjoying their study. In doing so, Jenny was also being strategic and self-regulating that she was aware of the time limitation and the requirement of getting a pass for all the GE modules.

Yet, what Jenny reported seems to imply that her engagement in other modules was also influenced as her heavy study load seems to exceed her capacity to handle in one single term. It shed lights on study load being too heavy or perhaps unrealistic seeming to be a factor leading to students' disengagement as students find it demotivating, frustrating and helpless to cope with the demanding study load that they may not have the capacity to develop interest in the subjects, but just barely manage to complete all the academic tasks as required. This may ring the bell for educators to reflect on the curriculum design and realistic expectations on students in light of their capacity to handle the study load and academic matters.

Another institutional practice reported in respondents' disengagement is related to the use of English as the medium of instruction for all modules in Harmony University (except modules on Chinese culture) that respondents expressed their

difficulty to learn in English, which is not their first language. Indeed, most respondents recalled how they worked extra hard to overcome their difficulties in learning in English as majority of them completed their secondary education with Chinese as the medium of instruction. Therefore, respondents in Harmony University did not only spent time to overcome the transition from secondary schools to higher education, but also the drastic change in the medium of instruction. For instance, David and Alex both talked about their difficulty to comprehend the course content and to express their ideas in English and how they expended extra effort to look up the concepts from the dictionary, trying to make sense of the course materials.

> "I was interested in the module of nutrition, yet it was so difficult to learn in English, especially those technical terms which I could only figure out their meaning by looking them up from the dictionary".
> *(David)*

David seems to be motivated by his interest in the module on nutrition, while Alex recalled how he stepped back from his initial plan to comprehend the course materials in English, reducing the effort he used to invest in his study.

> "All course materials were presented in English! I had to look them up for the Chinese meaning or I could not catch up … it took up so much time [that] I could not afford doing the same for every module, so I just stopped doing it after some time".
> *(Alex)*

Alex's experience reflects a shift of strategy use as he was aware of his limitations of expending time and effort for every module, contrary to how Melissa related to her disengagement when taking the module of Statistics.

> "I was totally lost when I was taking the module of Statistics, having to study those complicated concepts in English made it even more challenging and I really lost my interest and motivation to make sense of their meaning at all."
> *(Melissa)*

Instances recalled by respondents concerning their disengagement experiences reveal that some institutional factors, such as an unrealistically demanding study load and

the challenge of comprehending the course materials in English as a second language, have contributed to their reduced interest and thus effort in their study. The challenges associated with the use of a second language as a medium of teaching is supported by studies arguing that it is creating a demanding cognitive load for students to master both the language and the subject content (Gębka, 2014), resonating with how respondents recalled their reduced effort invested in their study. Amid those challenges, instead of completely withdrawing from their study, respondents recalled how they attempted to overcome the difficulties by investing extra portion of effort, e.g. Jenny's persistence to meet the minimal course requirements amid heavy study load and Alex's time and effort invested in translating the course materials from English to Chinese, hoping to help himself comprehend the course content. Despite their attempts to stay engaged in their study, respondents regarded those experiences as disengagement, instead of engagement, reflecting reduced motivation and lack of energy. For instance, Jenny complained about the study load of taking 8 modules that "it almost killed me" and Melissa reported "losing my interest and motivation to make sense of their meaning" when taking the compulsory module on Statistics. Their experience may illuminate some possible answers to the question raised by Murray et al. (2004), who wondered if students can be accurately described as entirely engaged or disengaged. While Murray's query seems to concern a perspective from the educators to identify students' engagement, findings from this theme and the interviews as a whole are concerned with how students perceive their experiences of engagement or disengagement. Perhaps it is important to take into consideration students' perspective in relation to the contextual influences in order to provide a fuller understanding of the notion of academic engagement in higher education.

9.1.3 Summary of experiences for disengagement from study

To sum up, I discussed respondents' experiences of disengagement involving their detachment and reduced investment in their study, reflecting another direction of academic engagement in contrast to the three preceding themes. Studies on experiences of disengagement are limited and they are focused on dropout of students, but relatively little was investigated about the experiences and factors contributing to students' disengagement (Murray et al., 2004), particularly the affective aspects. Findings from the present theme indicate that respondents reported a reduced effort, diminished interest, lack of enjoyment, and less eagerness to pursue a depth of knowledge as they recalled experiences of disengagement from study, usually in conjunction with some negative emotional experiences. These experiences add empirical evidence to the current understanding of the complexity of the process of academic engagement, which involves a continuum showing varying strengths of engagement (Bozpolat, 2016; Bryson & Hand, 2007; Virtanen et al., 2013), i.e. high or low levels of academic engagement.

Despite the fact that respondents did not recall a complete withdrawal from their study, e.g. quitting their programme, their experiences reflect some degrees of withdrawal and detachment from their study. For instance, Lucy and Melissa both reported losing their interest and thus their motivation to pay attention in modules they were not interested in, while Gloria reported "feeling so discouraged… [and] empty …" when her curiosity to seek deepened understanding was not encouraged by her lecturer. These experiences support researchers who argued that disengagement is more than the absence of engagement (Chipchase et al., 2017; Skinner et al., 2008, 2009) that it also involves the experience of negative feelings, e.g. boredom, frustration and discouragement reported by various respondents throughout their disengagement. Respondents' recollections of their disengagement

involve such aspects as a lack of participation (behavioural) and boredom (affective) and they also perceived their disengagement is being influenced by some contextual factors, such as lack of interest in the subject matter and lecturers not being enthusiastic nor responsive to students' needs. These recollections support researchers who suggested disengagement is also multidimensional and susceptible to contextual influences (Duffy & Elwood, 2013; Finn & Zimmer, 2012; Fredricks et al., 2004; Kahu, 2013; Lawson & Lawson, 2013; Trowler, 2010; Wang & Degol, 2014). Therefore, Theme Four shed lights on understanding the factors which respondents considered as contributing to their disengagement (i.e. inhibitors of engagement) are equally important to understanding those factors promoting engagement (i.e. facilitators of engagement), so that educators would have a better idea to promote some strategy use while avoiding some inhibitors of engagement.

9.2 Summary of interview findings

To conclude, I discussed the interview findings in four main themes (briefly summarised below), which were presented in Chapters 6 to 9 and they have answered the second and third research questions concerning respondents' experiences of academic engagement and their the representation of affective elements in those instances.

- **Theme One: Respondents' bonding and encounters with lecturers and peers (Chapter 6)**
- **Theme Two: Respondents' engagement experiences reflecting the affective elements of learning (Chapter 7)**
- **Theme Three: Respondents' cognitive processes of engagement (Chapter 8)**
- **Theme Four: Respondents' experiences of disengagement from their study (Chapter 9)**

The next chapter will be the final chapter during which I will integrate the findings from the survey (Chapter 5) and the semi-structured interviews (Chapters 6 to 9) in

the present mixed method study. I will discuss how the pattern of relationships and the lived experiences reported by students have addressed the research problem and objective I set out in the present study in light of the conceptual framework and the literature.

Chapter 10

Discussion and Conclusion

10.1 Overview of the chapter

The present study examines the experiences of academic engagement and the affective dimension of learning of Hong Kong higher education students by focusing on investigating the relationship between academic engagement and PsyCap, as well as the representation of affective elements in students' engagement with academic work. This chapter discusses the implications of the present study by integrating findings from the survey and the interviews I presented in Chapters 5 to 9. I will begin the current chapter by presenting how the three research questions are answered by the findings in light of studies from the literature. After that, I will move on to a general discussion highlighting the conceptual contribution of the findings for higher education studies, followed by suggesting some professional practices to be adopted in higher education. Finally, I will close the thesis by addressing the limitations of the present mixed methods study and suggest directions for future research.

10.2 RQ1: Patterns of relationship between academic engagement and PsyCap

Findings from the survey in Chapter 5 identified two main patterns of relationships between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong, answering the first research question (RQ1).

> **Research Question 1 (RQ1):**
>
> **What is the relationship between self-reported academic engagement and Psychological Capital in higher education students in Hong Kong?**

The two patterns of relationship identified from the survey results include: (1) a positive correlation between academic engagement and PsyCap and; (2) a reciprocal relationship between academic engagement and PsyCap that they are found to predict each other.

10.2.1 Positive correlation between academic engagement and PsyCap

First, the positive correlation identified between academic engagement and PsyCap (see Section 5.3.2.1) indicates that higher education students in Hong Kong reporting higher levels of PsyCap also reported higher levels of academic engagement, supporting findings from previous studies (Fati et al., 2019; Luthans et al., 2016, 2019; Martínez et al., 2019; Siu et al., 2014). Findings from the present study does not only reveal the mentioned positive correlation between academic engagement and PsyCap as composite constructs, but also extending the results to indicate a positive correlation between their individual dimensions. The survey results indicate that all three dimensions (behavioural, affective and cognitive) of academic engagement and four components of PsyCap (hope, self-efficacy, academic resilience and optimism) are positively correlated with each other, e.g. the cognitive dimension of engagement is positively correlated with the component of self-efficacy in PsyCap (see Section 5.3.2.2). Despite the fact that academic engagement has been recognised as a multidimensional construct consisting of the facets of behaviour, affect and cognition, there has been relatively few studies examining all three dimensions in a single study (Fredricks et al., 2005), particularly in higher education settings. Thus, the survey results exploring the individual dimensions add empirical support to the use of a tripartite model and the multidimensionality of academic engagement in higher education students in Hong Kong. Furthermore, the positive correlations identified between the individual dimensions of academic engagement and PsyCap offer a more finely tuned understanding of the two composite constructs, such as the different strengths of correlation between their individual dimensions. For instance, the significantly stronger correlation identified between cognitive engagement and PsyCap components support that both constructs involve students' strong determination to achieve academic goals, including self-regulated learning in cognitive engagement and

academic resilience in PsyCap (see Section 5.3.2.4). Hence, the stronger correlation found between cognitive engagement and PsyCap indicates a linkage between affective and cognitive aspects of student learning, which is further exemplified in respondents' recollections of instances of engagement from the interviews. This is specifically observable when they attempt to recall how academic resilience (affective) promotes their effort to pursue in-depth understanding of the course materials and to monitor their study progress (cognitive); this will be explored in more depth in the following section.

10.2.2 Academic engagement and PsyCap influencing each other

The second pattern of relationship identified from the survey results involves a reciprocal relationship between students' academic engagement and PsyCap. Notably, having both engagement and PsyCap significantly predict the other indicates that enhancing students' PsyCap can foster academic engagement and vice versa. These findings support an earlier study which revealed a reciprocal influence between academic engagement and PsyCap of full-degree university students in Hong Kong (Siu et al., 2014). The present study extends that reciprocal influence to higher education students taking Associate Degree and Top-up Undergraduate Degree programmes in Hong Kong, a population which has not be given much attention in extant studies focusing on academic engagement and PsyCap. To recapitulate, participants in the present study are students who do not meet the minimum entry requirements for universities, thus, they are academically less competent than students enrolled in full-degree programmes (detail see Section 1.4.1), who are arguably to benefit more from academic engagement (Pascarella & Terenzini, 2005; Ribeiro et al., 2019). Thus, findings from the present study add to the body of knowledge of a population of Hong Kong higher education students, who are likely to benefit more

from engaging in their study, whilst being neglected in existing studies capturing academic engagement and PsyCap.

Furthermore, the reciprocal relationship found between composite academic engagement and composite PsyCap is extended to include the contribution of their individual dimensions. The survey results (see Section 5.3.4) reveal that the combined influence of self-efficacy, hope and academic resilience is stronger than the influence of the composite PsyCap in predicting students' academic engagement, as optimism in PsyCap does not appear to predict students' academic engagement. Since optimism does not appear to predict academic engagement, it seems that it will be more effective to foster students' academic engagement by enhancing their self-efficacy, hope and academic resilience specifically. The contribution of these PsyCap components is represented in greater depths in the interview findings where respondents recalled their engagement experience, I will illustrate further in the next section as I address the two remaining research questions.

When the individual dimensions of academic engagement are examined, only the dimensions of affective and cognitive engagement have significantly predicted PsyCap, however behavioural engagement on its own does not predict students' PsyCap. This finding supports the influential role of both the affective and cognitive dimensions of engagement in enhancing students' PsyCap, which then predicts their academic performance (Luthans et al., 2012 2014; Martínez et al., 2019; Ortega-Maldonado & Salanova, 2018; Siu et al., 2014), illuminating the potential importance of promoting specific aspects of students' academic engagement as a way to foster their academic performance. The influence of these affective and cognitive aspects of academic engagement in promoting students' overall engagement is represented in their recollections of learning experiences in the interview findings, to be addressed in the next section.

10.2.3 Summary of answers for RQ1

To sum up, RQ1 is answered primarily by the survey results, where a positive correlation is identified between students' self-reported academic engagement and PsyCap, including the positive links between their individual dimensions and the two constructs as composites. Next, a reciprocal relationship found between academic engagement and PsyCap addresses how the two constructs and their components predict each other, suggesting further studies to illuminate some possible and effective ways for educators to consider if they plan to promote either construct to foster students' academic performance. Furthermore, the influential role of affective engagement in predicting students' PsyCap recognised in the survey findings supports the importance of the affective dimension of learning in higher education students in Hong Kong. These results add further conceptual understanding of academic engagement and PsyCap as composite constructs as well as the influence of their individual dimensions on students' academic work. They also illuminate possible and specific strategies to promote academic engagement and PsyCap of higher education students, such as strengthening students' academic resilience through provision of challenging academic tasks with guidance and feedback from lecturers, in light of the influence of their specific dimensions. I will discuss those strategies in detail as I provide recommendations on educational practices in Section 10.6

10.3 RQs 2 & 3: Prominence of affective elements in students' engagement

The pivotal role of the influence of affective elements on students' overall academic engagement is further supported by the interview findings presented in Chapters 6 to 9. In the interviews, affective elements are reported by respondents either when they are engaged in their academic work or disengaged from their study, answering the second and third research questions:

Research Question 2 (RQ2):

How do higher education students in Hong Kong experience and perceive their engagement in study?

Research Question 3 (RQ3):

How do higher education students in Hong Kong experience and perceive the affective dimension of learning in their academic engagement?

Respondents' recollections on their academic engagement experiences in the present study provide evidence to support the argument that students typically recalled incidents of memorable learning involving ***"a strong, positive, emotional or affective dimension"*** (Dirkx, 2001, p.67). In Chapters 6 and 7, I have presented an array of affective elements fostering students' academic engagement, including their academic encounters with lecturers and peers, study-related emotional experiences, interest in learning as well as the utilisation of PsyCap resources to sustain their study. Respondents' recollections provide evidence to substantiate the conceptual framework I have formulated for the present study (see Figure 10.1), which illustrates the inter-connections between students' academic engagement and the affective dimension of learning, supporting the concerted influence of various affective elements in promoting students' engagement in their study. Indeed, various affective elements are reported in conjunction with each other in respondents' recollections, such as positive emotional experiences (e.g. enjoyment and satisfaction) are resulted from students' interest in the subject matter, which is promoted by enthusiastic lecturers. Thus, findings from the present study respond to researchers' call for a richer understanding of the affective dimension of learning in higher education (Beard et al., 2007, 2014; Evans et al., 2015; Jackson, 2015; Naude et al., 2014; Rattray, 2016, 2018; Rogaten et al., 2019; Trigwell et al., 2012), which has thus far been adequately represented in the existing literature.

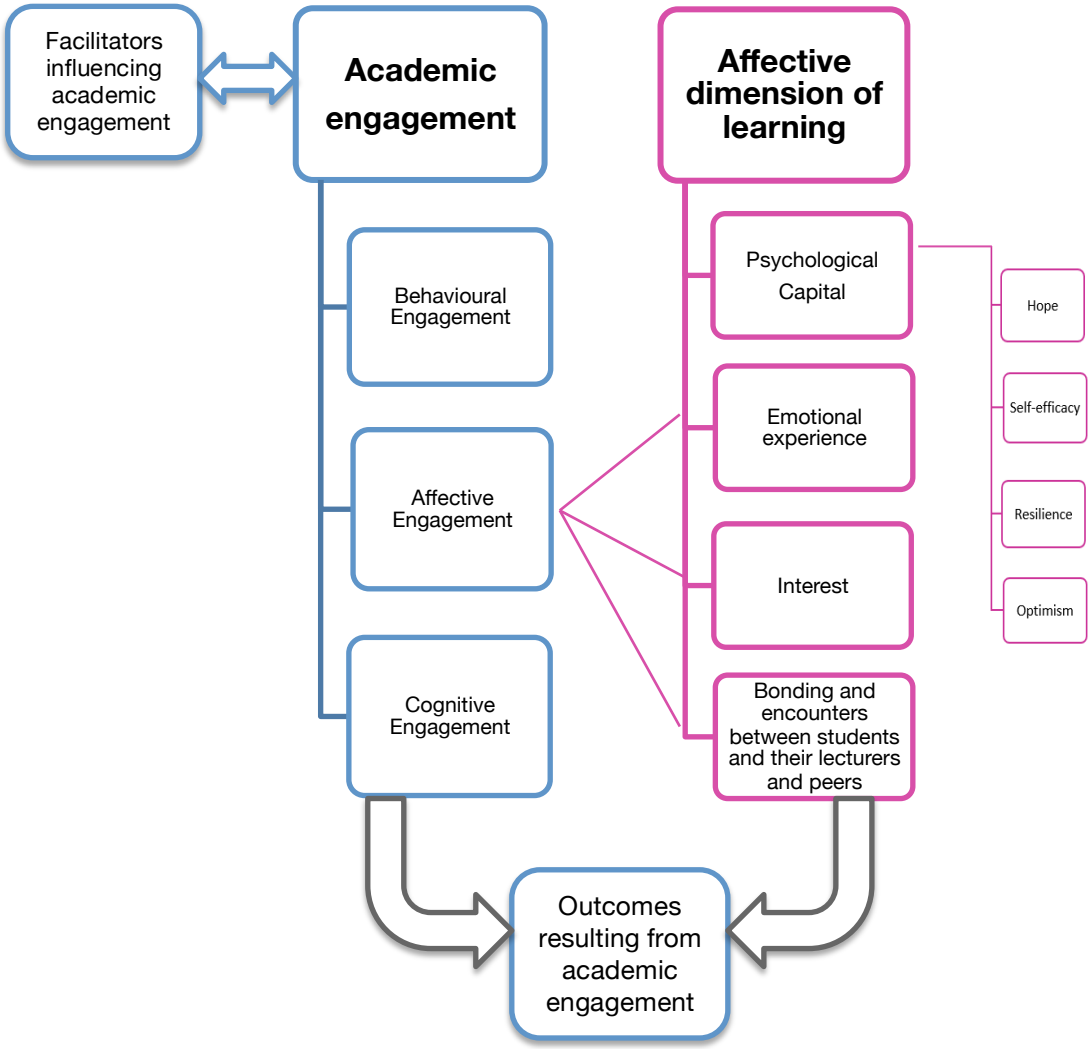


Figure 10.1. A conceptual framework capturing the process of academic engagement and its connection with the affective dimension of learning.

10.3.1 Crucial role of lecturers and peers in fostering academic engagement

Amid the affective elements, lecturers play a prominent role in influencing respondents' engagement in study as the majority of them referred specifically to their encounters with lecturers and described how these encounters fostered their academic engagement. Despite a recognised positive link between students' encounters with lecturers and their academic engagement, the particulars of those lecturer-student interactions are relatively under-examined in higher education studies (Farr-Wharton

et al., 2018; Hagenauer & Volet, 2014; Kuh & Hu, 2001; Schutz et al., 2006). Findings presented in Chapter 6 add further detail to the quality of lecturer-student interactions as respondents recalled encounters involving how lecturers contributed to their in-depth thinking, perspective shifts and ability to engage with the course materials in such ways as to challenge the students' existing thoughts and to encourage them to articulate and justify their views on particular topics. Furthermore, respondents' recollections also highlight the influence of lecturers' enthusiasm, which has been reported as having enhanced students' interest and enjoyment in the subject and their academic work, resonating with findings from previous studies (Evans, 2007; Frenzel et al., 2009; Sander et al., 2000). In the present study, respondents' recollections offered further understanding on lecturers' enthusiasm by linking it with lecturers' quality of teaching, expertise in the subject area and availability to provide academic guidance to students, offering richer detail to the existing interpretation of lecturers' enthusiasm. Respondents also recalled how their lecturers' personal attributes fostered their engagement in study, some examples include lecturers setting high standards and expectations, giving timely and constructive feedback, creating a positive and interactive learning environment and their willingness to bond with students. Therefore, findings from the present study add flavour to previous studies which suggest the crucial role of lecturers in fostering students' engagement in their study (Beard et al., 2014; Dirkx, 2001; Frenzel et al., 2009; Hagenauer & Volet, 2014; Mearns et al., 2007; Moore & Kuol, 2007b; Zepke & Leach, 2010) and this holds particularly true for lecturers' attributes and their bonding with students. In addition, respondents reported their bonding and encounters with peers contribute to their willingness and persistence to invest effort and time in their study, in such ways as having academic exchange and collaboration in group work with peers, which further promote their understanding of the subject content. They also perceived their quality of friendship

and the mutual help between their peers as critical to help them persist in their study despite frustrations resulting from academic setbacks, e.g. unsatisfactory results. Therefore, respondents' recollections involving their bonding and encounters with their lecturers and peers have answered RQ2 and RQ3, by addressing how lecturer-student interactions as one of the affective elements, are manifested in the processes of students' engagement and as a facilitator fostering students' engagement in their study.

10.3.2 PsyCap sustaining academic engagement

Another important affective element contributing to foster students' academic engagement is PsyCap, which is found to sustain students' persistence in their study despite setbacks and challenges. Results from the survey (Chapter 5) reveal the predictive role of PsyCap in fostering students' academic engagement, while findings from the interviews (Chapter 7) identified instances where respondents' displayed PsyCap while they were engaged with their academic work. Amid the PsyCap components, academic resilience seems to play a prominent role in promoting and sustaining students' effort in their study, reflected by its recurring representation in respondents' recollections (see Section 7.1.3.2). Researchers have argued that the academically resilient students are psychologically resourceful in that they tend to choose challenges over ordinary tasks and perceive those challenges as opportunities for further development and growth (Bonanno, 2004; Richardson, 2002; Rutter, 2006, 2012). In doing so, they reflect on and make use of their setbacks to develop effective strategies to cope with future adversities (Luthans, Vogelgesang, et al., 2006). Existing studies on academic resilience are primarily focused on its positive links with challenges and setbacks (Fletcher & Sarkar, 2013; Luthans, Vogelgesang, et al., 2006; Rattray, 2016), while findings from the present study expand on these links, adding to the literature how students respond to those challenges and setbacks as they develop their academic resilience. For instance, respondents recalled welcoming challenges in

their study, employing various pathways to transform their academic setbacks into coping strategies and persistence for their study, such as regulating negative emotions by re-focusing on their academic goals and utilising their unsatisfactory results to monitor their study progress. Chapter 7 shows that despite PsyCap components of self-efficacy and optimism are seemingly less represented in respondents' recollections of engagement experiences. They are actually embedded in those engagement experiences, resonating with the argument that students who are academically resilient tend to draw on other PsyCap resources as pathways to bounce back from adversities (Cavazos et al., 2010; Luthans, Vogelgesang, et al., 2006) so as to sustain their effort in study. These findings reveal how students develop and utilise their PsyCap during challenging situations. As such, they demonstrate a positive appraisal of their academic setbacks and challenges by transforming them into further strategies to strengthen their existing psychological resources for future adversities, illuminating possible avenues for educators to enhance students' PsyCap to promote their engagement and persistence in study.

10.3.3 Other affective elements promoting academic engagement

In addition to the influential role of lecturers and PsyCap on students' engagement, other affective elements also contribute to students' investment in their study, such as students' emotional experiences, their interest and peer interactions. First, the interview findings capturing engagement experiences associated with respondents' emotional experiences (positive and negative) support researchers who encourage educators to "invite emotions" (Shechtman & Leichtentritt, 2004, p.332) to the academic contexts and acknowledge their influence on student learning. Study-related emotional experiences appear to be a recurring affective element in respondents' recollections of academic engagement, either when they were searching for deep meaning of the course materials on their own or when they spent time with

lecturers and peers to discuss topics of the subject matter. Those instances support the established link found between study-related emotions and academic engagement (Ainley et al., 2005; Efklides & Petkaki, 2005; King et al., 2015; Linnenbrink-Garcia & Pekrun, 2011; Pekrun & Linnenbrink-Garcia, 2012; Taasoobshirazi et al., 2016). These studies indicate that positive emotions such as enjoyment, excitement and satisfaction are associated with respondents' acquisition of in-depth knowledge and their progress made in study (e.g. completing assignments and improved marks for assessment). Negative emotions, in contrast, received varied interpretations from respondents that boredom and frustration were reported in association with their disengagement from study, supported studies identifying the link between boredom and a reduction in students' effort, interest, cognitive strategy use and self-regulation in their study (Pekrun et al., 2010; Sharp et al., 2018; Tanaka & Murayama, 2014), i.e. indicators of academic engagement. On other occasions, some negative emotions were perceived as influencing students' engagement favourably, when respondents recalled how they positively evaluated disappointment, anxiety and guilt and turned them into resources to motivate themselves to expend more effort in study to avoid future failures. These contribute empirical evidence to the existing studies focusing on the overall linkages between study-related emotions and academic engagement (Pekrun, 2006; Pekrun et al., 2011, 2002; Pekrun & Linnenbrink-Garcia, 2012). Indeed, findings from the interviews add empirical evidence to RQ2 and RQ3 that they have addressed the representation of various study-related emotions in influencing students' academic engagement that those instances also address the complexity and understanding of the study-related emotions from students' perspectives (Kahu et al., 2015; Moore & Kuol, 2007a).

Second, Chapter 7 indicates that respondents' interest contributes to their intention to deepen their knowledge in the subject matter and their investment of efforts to

monitor their study progress. This supports the positive link between students' interest and their engagement in study (Ainley, 2012; Harackiewicz et al., 2016; Kahu et al., 2017; Sansone & Thoman, 2005) and the progression from situational interest (transient) to individual interest (stable) found in previous studies (Ainley et al., 2002; Hidi & Renninger, 2006; Krapp, 2005). Respondents also commented on how their interest grew as a result of such contextual influences as novelty of the knowledge and their perceived utility of the subject content, particularly when their lecturers demonstrated enthusiasm for the subject matter.

Third, findings from the interviews also reveal that respondents' interactions with peers contribute to their academic engagement, particularly when they exchange views. This helps them gain perspectives to interpret issues covered in the subject, and overall deepened their understanding of the subject content (Naude et al., 2014; Picton et al., 2017; Topping, 2005; Värlander, 2008; Zher et al., 2016). While some peer interactions were reported as part of the course requirements, e.g. having discussion with peers to complete a group assignment, respondents also recalled instances when they initiated the formation of study groups with peers sharing a similar interest in the subject and academic goals to continue their discussion of the subject content. Furthermore, the present study reveals the benefits of mutual help between respondents and their peers on academic matters, in such ways like offering guidance to each other for catching up with the challenging course materials (Choi et al., 2005; Picton et al., 2017), as well as social support to overcome the frustration and worries resulting from academic setbacks, such as having a poor result, in order to persist in their study. In addition, they also find it helpful to sustain their effort by observing their peers who achieved good results, thinking that they share similar abilities, reflecting features of their self-efficacy and academic resilience, another example

showing how the affective elements are inter-related with each other as students are engaged with their academic work.

To sum up, it is evident that the affective dimension of learning plays a role in influencing students' connections to their academic work, particularly if they have developed a strong interest in the subject matter, gain inspiration through interactions with lecturers and peers that they are likely to experience positive emotions which are likely to foster their academic engagement. Students who are academically resilient are particularly capable of using other PsyCap resources like hope, self-efficacy and optimism to overcome setbacks and challenges they encounter in order to transform those difficulties into resources and strategies to cope with future challenges. These findings provide clear answers to the second and third research questions of how the affective elements are manifested in students' investment in their academic work.

10.4 RQs 2 & 3: Processes of academic engagement

Another answer to the second and third research questions is the expanded understanding of the notion of academic engagement in the following aspects. First, interview findings shed light on the specific cognitive processes when students invest their time and energy beyond the course requirements, adding further detail to the current conception of the cognitive dimension of academic engagement. Furthermore, the interview findings also expand the current understanding on students' disengagement, which is currently under-examined in the existing studies, particularly through students' lens perceiving their disengagement and factors influencing their disengagement from study

10.4.1 Cognitive processes sustaining academic engagement

Findings from the present study add to the current understanding of the cognitive dimension of engagement, something which has been argued to be less directly observable via students' behaviours (Appleton et al., 2006; Barlow et al., 2020; Greene,

2015). Rather, they are more readily discerned by identifying characteristics typically associated with a deep approach to learning and self-regulated learning (Blumenfeld et al., 2006; Fredricks et al., 2011; Greene, 2015; Reschly & Christenson, 2012; Rotgans & Schmidt, 2011a). Chapter 8 captures respondents' recollections of cognitive processes as they expend effort in their study beyond the course requirements, reflecting in their various cognitive strategy use, providing a clearer indication of cognitive engagement. Respondents recalled episodes when they were pursuing the meaning of the course materials in greater depth with the use of various cognitive strategies, such as making connections between different topics in the subject content, integrating their existing knowledge with the new course content, organising the course materials and elaborating their ideas with justifications from the text as evidence. From those instances, some respondents manifest an intention to seek deeper cognitive understanding with an intrinsic motivation, while some respondents reflect an assessment-orientation that they are flexible in strategy use with an emphasis to achieve outstanding academic performance. Respondents also report the use of self-regulatory strategies to monitor their study progress as they make plans to complete their academic work and evaluate their performance. Furthermore, there appears to be a linkage between students' cognitive processes and their affective elements as they are engaged in their study. For instance, students' interest in the subject matter promotes their employment of cognitive strategies to pursue further understanding of the course materials. Some students regard lecturers setting high standards on their academic work can motivate them to invest more cognitive efforts in their study in order to meet their lecturers' expectations. Respondents also recall their satisfaction and excitement after experiencing desirable study progress resulting from their effort to make plans and to evaluate their performance towards achieving their goals, i.e. self-regulated learning is associated with some positive emotional experiences in

students. These instances reveal the inter-relatedness between the affective and cognitive aspects of students' academic engagement, which I will return to as I discuss the conceptual contribution of the present study (see Section 10.5).

10.4.2 Expanding understanding of disengagement

While the majority of studies are focused on investigating experiences and factors concerning students who are highly connected with their academic work, there are limited studies exploring instances of disengagement (Chipchase et al., 2017) and factors affecting students' disengagement from their study. Findings from the interviews reveal that respondents perceive their engagement experiences as more than compliance behaviours like attending classes and submitting assignments. Instead, they seem to expect a combination of affective and cognitive aspects, such as a willingness to invest effort to understand the course content and enjoying knowledge acquisition. Respondents reporting instances of disengagement generally recall a certain degree of withdrawal from their academic tasks, which further led to reduced effort and energy invested in their study (Chipchase et al., 2017; Skinner et al., 2008, 2009). In such situations, they expressed passive compliance with course requirements and expended minimal effort in the course. When respondents recalled experiences of disengagement, they reported the influence of some affective elements, such as their lack of interest in the subject matter, lecturers whom they perceived as unapproachable and unavailable for out-of-class discussion, as well as some negative emotional experiences, e.g. frustration and boredom. These results further highlight the importance of the affective dimension of learning in influencing both positive engagement and disengagement of students in their study.

10.4.3 Summary of answers to RQs 2 & 3

To conclude, findings from the survey and interviews complement each other in such ways that the survey results identify firstly the positive correlations between academic

engagement and PsyCap, and secondly, how they mutually seem to influence each other. Following that, the interview findings reveal how PsyCap and affective elements are manifested in respondents' engagement experiences. Indeed, the fact that the survey results reveal the predictive role of affective engagement on PsyCap is pivotal, thus adding significantly to the existing literature on the affective dimension of learning and its influence on students' academic engagement, particularly respondents' encounters with their lecturers and peers, e.g. their bonding and academic discussions, which are reported as playing a central role in their experiences of academic engagement. In addition, other affective elements such as respondents' study-related emotional experiences, interest development and their utilisation of PsyCap during their study also contribute to respondents' determination to sustain their efforts in their study. Those affective elements were also embedded in other themes as respondents recalled instances capturing their cognitive processes of engagement and their disengagement from study. This included some positive emotional experiences (e.g. enjoyment and excitement as part of affective engagement) and respondents' interest in the subject matter was reported in conjunction with their knowledge acquisition and perspective shifts (cognitive engagement). Conversely, negative emotions such as boredom and frustration were reflected in respondents' disengagement from their study. This was particularly the case for those instances when they recalled taking those compulsory modules they were not interested in or when they reported not receiving enough academic support from their lecturers when they attempted to seek help.

In addition to the prominence of affective elements, findings from both the survey and interviews reveal the importance of the cognitive dimension of academic engagement, particularly concerning respondents' intention to seek deeper meaning of the course materials using various cognitive strategies as well as their effort and pathways

employed to monitor their progress of study. These experiences offer avenues to understand the cognitive dimension of academic engagement in more depth, which is less explicitly observable from students' behaviours. Therefore, while results from the survey support the representation of multiple dimensions of academic engagement, consisting of behavioural, affective and cognitive aspects, the interview findings capture instances concerning how the individual dimensions are manifested in students' experiences and how those experiences are influenced by contextual factors in the academic encounters. Finally, the experiences associated with respondents' disengagement from their study contribute to the understanding of the notion of academic engagement by adding instances of the opposite end of the continuum reflecting students' connection to their academic work.

10.5 Conceptual contribution of the findings

To facilitate the discussion on the conceptual contribution, I copy the conceptual framework of the present study (see Figure 10.1) again as a signpost for discussion while I also present a flow chart in Figure 10.2 to summarise how the findings from the survey and interviews contribute to the conceptual enrichment of academic engagement, PsyCap and the affective dimension of learning, with reference to the research problems of the present study. After discussing their conceptual contribution, I will address how the findings illuminate practical recommendations to support professional educational practices in higher education in Hong Kong.

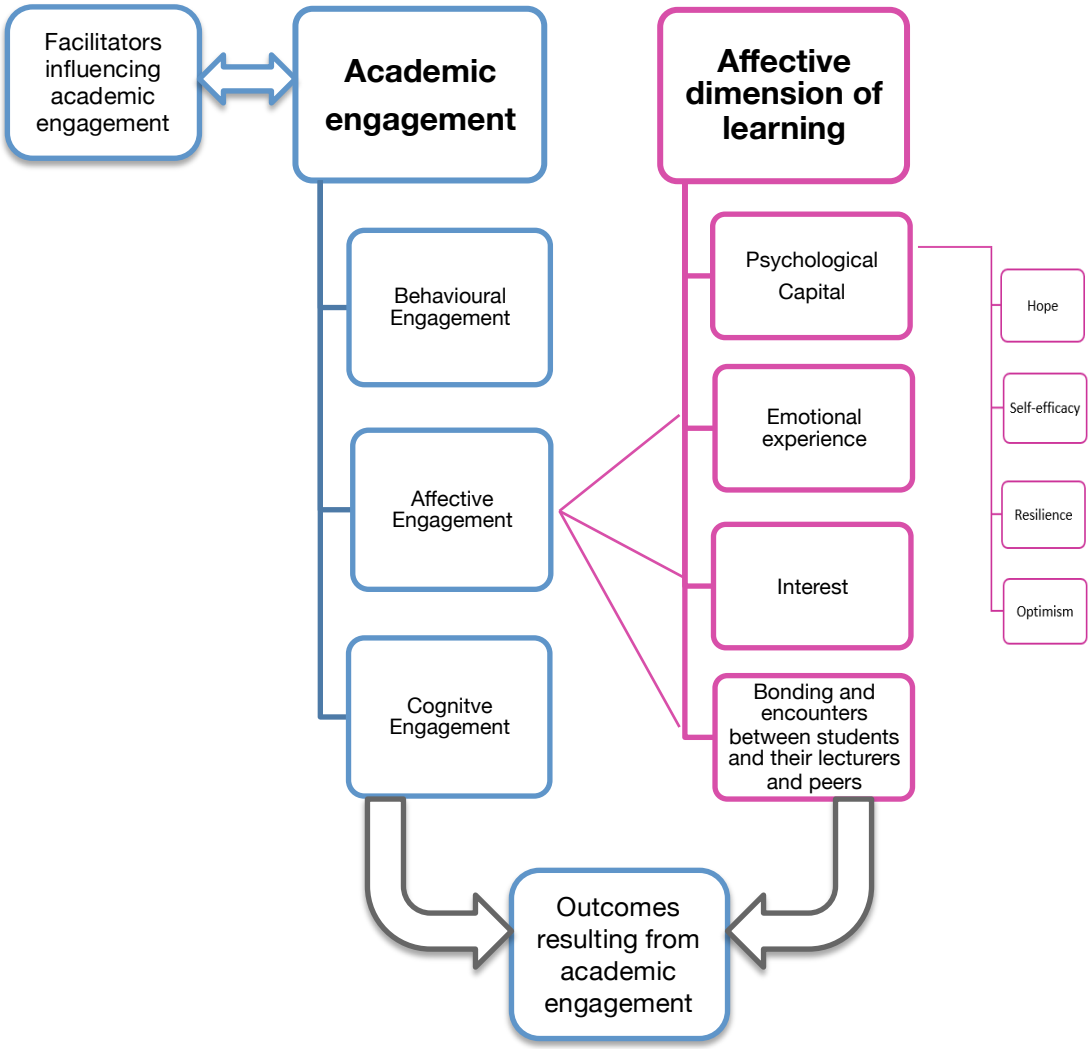


Figure 10.1. A conceptual framework capturing the process of academic engagement and its connection with the affective dimension of learning.

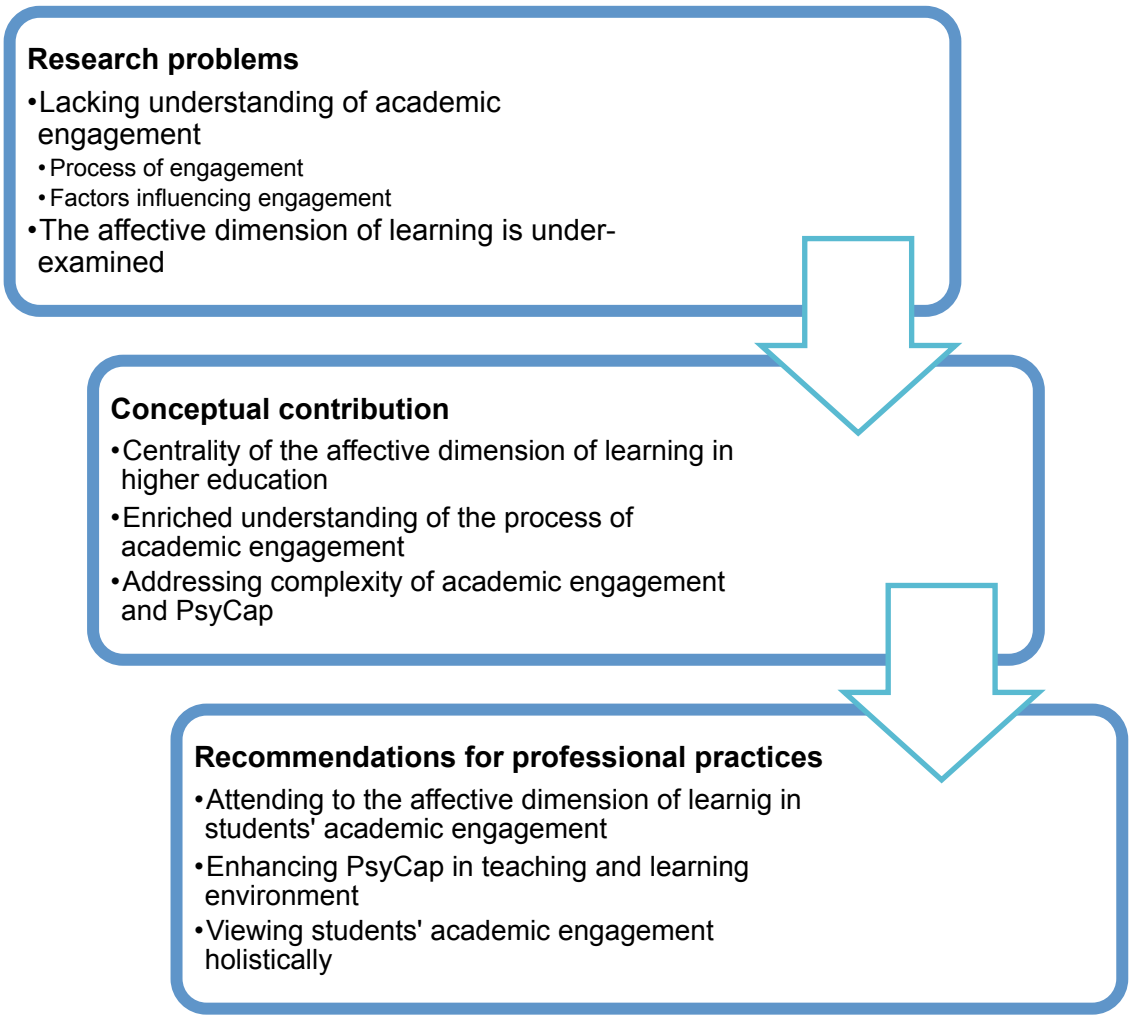


Figure 10.2. A flow chart summarising how the findings of the present study have addressed the research problems in light of its conceptual contribution and recommendations for professional practices.

10.5.1 Centrality of the affective dimension of learning in higher education

To facilitate the discussion on the conceptual contribution, I copy the conceptual framework of the present study again (see Figure 10.1) as a signpost for the presentation. First, the present study substantiates the centrality of the affective dimension of learning in influencing students' academic engagement, answering researchers' call to enrich the conceptual understanding of the affective dimension of learning (Beard et al., 2007, 2014; Evans et al., 2015; Jackson, 2015; Naude et al., 2014;

Rattray, 2016, 2018; Rogaten et al., 2019; Trigwell et al., 2012), particularly with respect to how it is manifested in the academic encounters of higher education students. As discussed in Section 10.3, findings from the present study reveal the individual contribution and the concerted influence of various affective elements on students' academic engagement. Amid those affective elements, students' encounters with lecturers are recognised as crucial in promoting students' deeper cognitive understanding and their enjoyment. In those encounters, lecturers' attributes, such as enthusiasm and availability, are found to foster students' interest in the subject matter, which in turn promote students to invest their effort further in their study. The established bonding between lecturers and students serves as a solid foundation to support their interactions with students, reflecting in lecturers' initiative to connect with students and their teaching quality. The influence of this lecturer-student bond resonate with findings which suggest the importance of lecturers' expression of care to students, manifested in their commitment to quality teaching and academic support to Hong Kong university students (Tang et al., 2021), a population similar to that of the present study. In addition, the interview findings support the pattern of interest development in students that they progress from a transient situational interest to an enduring individual interest (Hidi & Renninger, 2006), associated with students' exposure to novel knowledge with certain degree of challenge. Findings from the present study support the conclusion that sustained development of individual interest is more likely to happen if students perceive the subject matter as relevant and valuable to them, such that they can apply that knowledge to their daily life (Ainley et al., 2002; Hidi & Renninger, 2006; Krapp, 2005). Furthermore, positive emotional experiences are found to intertwine with a range of engagement experiences, for instance, students' pursuit of deep understanding of the subject content and their interactions with lecturers and peers, whereas negative emotions are reported when

students are disengaged from their study, supporting the linkages between study-related emotions and academic engagement (Pekrun & Linnenbrink-Garcia, 2012; Taasoobshirazi et al., 2016). Finally, PsyCap appears to play an important role in sustaining students' effort and persistence in their study, particularly at times of academic setbacks and challenges. Among the PsyCap components, academic resilience is perceived by students as an empowering psychological capacity to promote their employment of other resources of hope, self-efficacy and optimism as multiple pathways to sustain their efforts in study and to overcome challenges to bounce back from the setbacks they face (Cavazos et al., 2010; Luthans, Vogelgesang, et al., 2006). To sum up, the present study reinforces how multiple elements in the affective dimension of learning are represented holistically in respondents' academic encounters, as they recalled their engagement experiences.

10.5.2 Enriched understanding of the processes of academic engagement

The second contribution of the present study is that it enriches the current understanding of academic engagement in higher education students. This is particularly the case for what how students experience and perceive of their investment in academic work.

10.5.2.1 Affective-cognitive processes underlying academic engagement

Students' recollections reveal cognitive aspects of their engagement, which are less directly observable from students' behaviours. Specifically, students recalled using a range of cognitive strategies to deepen their knowledge acquisition and self-regulating strategies to monitor their study progress, offering detail to support the important role of the cognitive processes of engagement. In addition, the presence of affective elements in students' recollections of cognitive processes, such as how students' initiative of making plans for their study (cognitive process: self-regulated learning) appears to be influenced by their interest in the subject matter (affective), which in turn

encourages them to go beyond the course requirement to pursue understanding of the subject matter (cognitive process: deep approach to learning). Similarly, students who have deepened their knowledge acquisition recall experiencing positive emotions, such as enjoyment, excitement and satisfaction and a further enhanced interest in the subject matter. These findings suggest that academic engagement in higher education students is characterised by some underlying affective-cognitive processes, which seem to be mutually influencing each other. These include students' interest, their strategy use and the positive emotional experiences as a result of their investment in deeper knowledge acquisition. Therefore, the explicit indicators of academic engagement representing such behaviours as students' participation in class, discussion with lecturers and peers and their investment of time and effort on the course materials, are possibly influenced by the underpinning affective-cognitive processes, supporting the dynamic nature of academic engagement (Fredricks et al., 2004; Lawson & Lawson, 2013; Skinner & Pitzer, 2012; Wang & Degol, 2014).

10.5.2.2 Supporting the multidimensionality of academic engagement

Furthermore, the present study adds empirical evidence to support the multidimensionality of academic engagement, as there is a lack of studies investigating all three dimensions of academic engagement in a single study (Finn & Zimmer, 2012; Fredricks et al., 2005; Wang & Holcombe, 2010), particularly in higher education students. Findings from the present study support the existence and dynamic interactions between the three dimensions of behavioural, affective and cognitive engagement as students are engaged with their academic work (Lawson & Lawson, 2013), adding empirical evidence to conceptual framework combining both the tripartite model and the contextual framework (see Figure 10.1) Those indicators include explicit behaviours (e.g. students' participation and their articulation of ideas) and the relatively implicit processes of the affective-cognitive aspects (e.g. students'

enjoyment and interest in their study and their cognitive strategy use). Among the three dimensions, the role of affective engagement is evidently influential as it is significant predictor of PsyCap and it is also manifested as the various affective elements associated with students' recollections of experiences of engagement, such as study-related emotions and interest in learning. Similarly, the cognitive dimension of learning is found to predict PsyCap, which emphasises how students evaluate their use of positive psychological capacities in their academic work. This appears to be particularly relevant in times of difficulty when students encounter challenges and setbacks during their study.

10.5.2.3 Expanded understanding of the experience of disengagement

In addition to enriching the understanding on the positive end of academic engagement and factors promoting it, findings from the interviews add to the conceptual understanding of disengagement, another direction on the continuum of academic engagement which is under-represented in the existing studies, particularly factors influencing students' disengagement from their study (Chipchase et al., 2017; Murray et al., 2004). Students' lived experiences from the present study resemble the stance from researchers who argue that disengagement involves students' passivity and withdrawal from their study (Chipchase et al., 2017; Skinner et al., 2008, 2009). Although respondents' recollections do not reflect a complete withdrawal from their study, e.g. dropping out from their institution, they experiences reflect some degrees of detachment from their academic work, particularly involving affective elements such as negative emotions like boredom, frustration and discouragement as well as disinterest in the subject matter as they recalled instances of disengagement from their study. Those recollections also indicate that students perceive their academic engagement holistically instead of mere behavioural compliance (e.g. such as attending lectures), rather, they reflect an expectation towards affective and cognitive

processes, which includes enjoyment and satisfaction in their study and knowledge acquisition. These instances support preliminary findings suggesting that behavioural engagement is necessary, but not sufficient for students to get engaged in their study (Fredricks et al., 2016), expanding our current understanding on students' disengagement, which is relatively under-researched in the engagement literature, particularly in higher education.

10.5.3 Addressing complexity of academic engagement and PsyCap

The third contribution of the present study is attributed to the employment of a mixed methods approach in the present inquiry, aiming to address the complexity of academic engagement and PsyCap by examining their indicators, processes and contextual factors influencing the two constructs. The survey results reveal a reciprocal relationship between students' academic engagement and PsyCap, which is extended to include the contribution of their individual dimensions, adding finer detail to existing studies focusing on the positive and reciprocal link between the composite constructs of students' engagement and their PsyCap (Fati et al., 2019; Luthans et al., 2016; Martínez et al., 2019; Siu et al., 2014). While the survey findings primarily address broader patterns of relationship between the two constructs (e.g. the positive relationship and the reciprocal influence), the interview findings investigate what has happened underlying those relationships as students recalled their experiences and perception of academic engagement, involving their utilisation of PsyCap. Thus, the present study adds to the body of knowledge of current literature concerning academic engagement and PsyCap by supplementing extant studies (predominantly quantitative) with a holistic investigation involving lived engagement experiences of students to enrich the understanding of the phenomena in question in the present research context focusing on higher education students in Hong Kong.

When focusing on the influence of PsyCap, findings from the survey and the interviews reveal that some PsyCap components play a more significant role in fostering students' academic engagement than the others, suggesting some divergence from the argument that PsyCap as a composite has greater predictive influence on academic outcomes than its individual components (Luthans, Avolio, et al., 2007). In the present study, the combined influence of self-efficacy, hope and academic resilience is found to predict more variance in academic engagement than the PsyCap composite, as optimism is not a significant predictor of academic engagement in the survey. The reduced impact of optimism also aligns with the interviews findings where respondents report fewer instances displaying their standalone optimism in their engagement experiences. Rather, optimism is somehow embedded in respondents' recollections as they explicated academic resilience, during which other PsyCap resources, including optimism, are used as multiple pathways to overcome their setbacks and challenges, sustaining their effort in study. The divergent findings in the present study and the previous study (Luthans, Avolio, et al., 2007) would need to be further examined and it is possibly related to the research context focusing on higher education students in Hong Kong and the specific characteristics of the participants, who are academically less competent than university students in previous studies of PsyCap.

In line with these findings, the final contribution of the present study is rested in its extended investigation of academic engagement and PsyCap to higher education students in Harmony University in Hong Kong, who are academically less competent than full-degree students. This finding adds empirical evidence to the existing body of knowledge to support previous studies, which argued that academically less prepared students benefit more from academic engagement (Pascarella & Terenzini, 2005; Ribeiro et al., 2019). Findings from the present study also reveal the different

representation of PsyCap components in the participants of the present study that they seem to report instances of academic resilience and hope than self-efficacy and optimism, possibly related to their prior academic performance and perceived ability. With these conceptual contributions drawing from the findings from the survey and the interviews, particularly on the significant role of the affective elements including PsyCap as well as the cognitive processes of academic engagement, they offer possible avenues to foster academic engagement of higher education students, which I will address in the next section. I will recommend some possible practices for professional educators to consider as some pathways to encourage students' engagement with their academic work in higher education setting.

10.6 Recommendations for professional practices in higher education

Educators in higher education are concerned with developing effective professional practices to promote students' engagement with their academic work for it is linked with positive educational outcomes in students, such as improved academic performance, acquisition of knowledge and competencies and their overall wellbeing (Boulton et al., 2019; Bryson & Hand, 2007; Heikkilä et al., 2012; Ketonen et al., 2016; Krause & Coates, 2008; Kuh et al., 2006; Lewis et al., 2011; Pascarella & Terenzini, 2005; Ribeiro et al., 2019; Schlenker et al., 2013; Trowler, 2010; Trowler & Trowler, 2010; Upadyaya & Salmela-Aro, 2013). Taken together, the findings reveal the contribution of affective elements and representation of the cognitive processes in students' academic engagement. They further illuminate some practices to be adopted in higher education settings to foster students' engagement with their academic work.

10.6.1 Attending to the affective elements in students' academic engagement

First, the present study substantiates the crucial contribution of the affective dimension of learning in influencing Hong Kong higher education students' academic engagement, reinforcing the need for educators to attend to the affective aspect in

higher education students. The interview findings reveal the distinctive role of such affective elements as students' interactions with their lecturers and peers, their utilisation of PsyCap, their interest in the subject matter and their emotional experiences associated with their academic work. The prominent role of lecturers in promoting engagement of students reinforces it is important to empower lecturers to continue their effort to provide academic guidance and challenges to students, which is conducive to deepen thoughts in students' knowledge acquisition (Ashwin & Mcvitty, 2015). The present study also signifies the influence of lecturers' attributes, especially their enthusiasm, knowledge expertise and bonding with students, are crucial in creating a supportive teaching and learning environment to foster students' interest in the subject matter and to promote quality of student learning (Zepke & Leach, 2010). Also, lecturers who design hands-on activities and collaborative learning, not only promote students' investment in knowledge, but also help to build a sense of belonging between students and their fellow classmates (Linnenbrink-Garcia et al., 2011; Picton et al., 2017; Plett et al., 2014). The sense of belonging among peers and lecturer-student bonding, are each recognised as favourable to fostering students' academic engagement.

In light of these findings, it is recommended that lecturers in higher education to be informed and empowered of their important role in fostering students' academic engagement in terms of academic guidance, enthusiasm and bonding with students, which would facilitate the creation of a safe and supportive environment for students to articulate their ideas on the subject matter in greater depth. Perhaps, institutions might also consider of supporting lecturers in higher education with professional training and guidance on effective ways to create a positive and safe teaching and learning environment, i.e. engaging lecturers to engage their students. Institutional practices to encourage students' participation in non-academic communities, such as

extracurricular activities, are found to promote their sense of belonging to the institution through establishing a bonding with other fellow students, which in turn support their academic engagement (Plett et al., 2014; Whillans, Hope, Wylie, Zhao, & Souza, 2018).

10.6.2 Incorporating PsyCap in the teaching and learning environment

Second, the influence of PsyCap in sustaining students' persistence to stay engaged in their study suggests that it will be beneficial to incorporate strategies to strengthen students' psychological resources, particularly academic resilience and hope in the teaching and learning environment in higher education. Including such practices may take the form of some specific training sessions to enhance students' PsyCap, while more realistically, PsyCap components can also be embedded in the regular academic encounters, such as during lectures or academic discussion. For instance, lecturers could integrate PsyCap components into their teaching delivery and encounters with students, such as setting high standard on students' academic work while making themselves available to respond to students' needs, providing a platform for fostering students' academic resilience, hope and self-efficacy. This is made possible as students are exposed to challenges outside of their comfort zone, meaning that they are likely to employ their PsyCap resources and develop multiple pathways to overcome setbacks and challenges in order to achieve their desired goals.

10.6.3 Viewing students' academic engagement holistically

The third implication for professional practices in higher education is related to how the present study demonstrates a holistic perspective of understanding students' academic engagement. Instead of merely relying on the observable behaviours such as students' attention and participation, educators can refer to a broader range of inter-related engagement indicators and process, involving affective elements (e.g. emotional experiences and interest) and cognitive processes (e.g. the use of self-

regulated learning strategies) beyond classrooms. The findings of the present study can also inform educators how students' academic engagement might be the result of the multiple and complex contextual influences. Consequently, this study indicates the need to incorporate and attend to affective elements in teaching practice. Particular attention should therefore be paid to such elements as interest and emotional experiences, factors embedded in students' academic encounters, which promote their investment in academic work further. For instance, with a better understanding of the progression of interest development and its influence on students' academic engagement, educators might be able to develop respective strategies to enhance students' interest in the academic study, such as delivering novel knowledge with a certain degree of challenge and by emphasising the relevance of the subject matter to the students' personal life. Furthermore, the present study also provides educators a better knowledge of how emotions are represented in students' lived experiences of engagement, such as positive emotions are intertwined with students' academic encounters with others and with the in-depth knowledge they have acquired. These instances seem to support the conclusion that educators who acknowledge emotional experiences associated with students' academic work, rather than avoiding emotions in the academic context would be better positioned to facilitate resilience and persistence in students.

Finally, as much as educators in higher education might wish to place a premium on student success in their institutions, the findings of the present study indicate that academically less competent students, like those in the present study, both require more support and are likely to benefit if more opportunities for direct engagement between students and lecturers are provided within their study alongside further support. To offer more support to students who are academically less competent and less prepared, educators can consider such practices as strengthening the academic

guidance and care from lecturers to students (Tang et al., 2021), teaching students the use of cognitive and self-regulating strategies to understand the subject matter and to monitor their study progress and enhancing their PsyCap resources, so that they are more likely to persist in their study despite challenges and setbacks.

10.7 Limitations and directions for future research

The strengths of the present study are primarily reflected in its depth of conceptual understanding of students' academic engagement and the representation of the affective dimension of learning in their engagement. First, it extends the knowledge of the current understanding of academic engagement and PsyCap from an indicator-focused investigation to a holistic perspective by examining the processes and contextual influences associated with the two constructs. The present investigation captures the lived experiences of students' academic engagement, their utilisation of PsyCap to persist in their study and how they mutually influence each other, e.g. how academic resilience activates the use of self-regulated strategies to sustain students' effort in their academic work, and how students' in-depth knowledge acquisition promote positive emotional experiences (e.g. enjoyment) and their self-efficacy. Second, the present study signifies the important role of the affective dimension of learning as an overarching framework encompassing multiple affective elements to influence students' academic engagement. Lastly, the present study extends the growing body of literature on academic engagement and PsyCap to the context of the present study, with higher education students in Hong Kong who are academically less competent and have been given less attention in the existing studies.

Despite the strengths discussed, findings of the present study have to be interpreted in light of some limitations. First, the research context of the present study was a private university in Hong Kong, offering Associate Degree and Top-up Undergraduate Degree programmes. As a result, conclusions were drawn from that particular

teaching and learning environment of the research context, where the majority of the participants were academically less competent than students from higher education students from full-degree programmes (see Section 1.4.1 for detail). Thus, findings from the present study may not be generalisable to other academic settings, where the teaching and learning environment and the characteristics of students differ from that of the present research context. Second, the present study investigated the aggregated experiences of academic engagement and the representation of the affective dimension of learning of students from various disciplines of study, however, it is possible that the pattern of engagement across disciplines of study may vary. For instance, students from Social Science in the present study report more interactions with their lecturers than students from Science (see Section 6.3.2.3). These differences may reflect the specific content and task requirements of the two disciplines, which is yet to be investigated by the present study and I will address it in the suggestions for future research. Third, the scope of the present study is focused on students' perception of their academic engagement and how it is being influenced by the affective aspects they have reported, however, relatively little is known about lecturers' perception on students' academic engagement. For instance, we are not sure if lecturers are aware of their crucial role in promoting students' engagement and the quality of learning as much as students perceived, leaving it open for further studies.

In light of these limitations, I would suggest several directions for future research to address the constraints in the present study and to extend the investigation from what have been identified from the findings. First, further studies can be extended to focus on examining students from specific disciplines of study, for instance, students' pattern of academic engagement in science subjects may be different from those in humanities. This direction is supported by preliminary findings in the present study and earlier studies revealing that Social Science students expected more lecturer-

student interactions than Science students (Evans et al., 2015; Lindblom-Ylänne et al., 2006; Párpala et al., 2010; Sander et al., 2000). Such difference in the expected interactions might affect how students from different disciplines of study perceive their engagement with the academic work, more studies are needed to examine patterns of students' engagement across various subject areas. Researchers suggested that the contexts matters in influencing students' academic engagement, despite it is inconclusive which aspects of academic engagement are similar across various disciplines and which are discipline-specific (Christenson et al., 2012; Fredricks & McColskey, 2012; Janosz, 2012). In fact, there are emerging studies examining students' engagement in the disciplines of mathematics and science (Fredricks et al., 2016; Wang, Fredricks, Ye, Hofkens, & Linn, 2016), with preliminary findings suggesting students were more attentive in class when studying mathematics, whereas students tended to have more exchange of ideas among themselves when taking science subjects. These burgeoning disciplinary differences found support the need to expand the investigation to examine how processes of academic engagement are represented in specific disciplines of study, providing more detail to the existing literature.

Secondly, more research is needed to examine the perception of lecturers on students' academic engagement in detail, such as their interpretation of students' academic engagement, factors perceived by lecturers as influencing that engagement and perhaps their role in facilitating students' academic engagement. This would contribute to our knowledge of whether lecturers and students perceive academic engagement in a similar manner or whether there appears to be potential discrepancies on the views towards engagement between the two parties. This research direction is supported by preliminary studies suggesting some dissimilar perceptions between lecturers and students on academic engagement that lecturers appeared to focus more

on the cognitive processes of engagement, while students seemed to be more inclined to the affective aspects, such as peer work (Zepke, Leach, & Butler, 2014), yet, more studies are needed.

The third direction for conducting future research is to include antecedents and personal characteristics of students in the inquiry, such as students' family background and whether they are first-generation university students. For example, first-generation university students without familial experience of higher education, would potentially have different expectations of higher education and that university life may be a challenge to them, especially when they lack a reservoir of knowledge and resources to draw upon (Ives & Castillo-Montoya, 2020; Soria & Stebleton, 2012).

Finally, the increasing use of online teaching and learning since the pandemic in 2020 suggests that it is compelling and timely to examine the experiences of students' engagement in online platforms and the possible factors influencing online learning or blended learning. It is uncertain whether students might report dissimilar patterns of academic engagement than those exhibited in the present study, particularly with the absence of in-person encounters with lecturers and peers. Preliminary findings indicate that students' online engagement is also facilitated by some affective elements, such as peer community and the level of engagement of their online lecturers (Farrell & Brunton, 2020), suggesting that perhaps there is similarity in terms of the factors promoting in-person and online learning. More studies are needed to explore further detail of the experiences and factors contributing to students' engagement in their online study or perhaps in blended learning.

10.8 Concluding thoughts

As I set out in the introductory chapter, the primary objective of the present study is to investigate how higher education students in Hong Kong experience and perceive their academic engagement in relation to Psychological Capital (PsyCap) and other

elements in the affective dimension of learning. This objective is addressed by the findings from the survey and the interviews in Chapters 5 to 9, supporting the conceptual and practical implications I highlighted in Sections 10.5 and 10.6. The present study adds to the body of knowledge by providing empirical evidence to support the prominence of the affective dimension of learning in promoting students' academic engagement. Among the affective elements reported by students, enthusiastic lecturers are recognised as indispensable in promoting students' academic engagement, in terms of their provision of academic guidance, willingness to bond with students and their expression of care, which serve as catalysts to stimulate students' investment in their study. These personal attributes of lecturers are also influential to foster other affective elements in the academic encounters, such as stimulating students' interest and positive emotional experiences related to study. Thus, if lecturers in higher education are better informed and empowered of their influence on students' engagement with study, more effective educational practices may be able to develop and contribute to the communities of practice to further support students' learning experience. PsyCap is another prominent affective element found to foster students' academic engagement, particularly academic resilience, which is frequently reported by students as a personal resource to pull together other psychological capacities (e.g. hope and self-efficacy) to transform their setbacks and challenges into improved coping strategies to face future challenges. This suggests that enhancing students' PsyCap in daily academic context can be a strategy to strengthen students' persistence in their study despite setbacks and challenges.

In addition, the present study expands the current understanding of academic engagement holistically that it reveals how the multiple dimensions are manifested in students' involvement with their academic work, offering more specific indicators to educators as reference to recognise students' engagement in their study. Students'

recollections of their disengagement from study support the malleability of academic engagement across contexts and they also provide further understanding on factors influencing students' disengagement, which is relatively less researched. With a more in-depth understanding of students' academic engagement revealed in the present study, educators and institutions are better informed of how they may contribute to promote students learning experiences.

Drawing to a close to the thesis, the present study highlights the influence of the affective dimension of learning on student learning and the expanded understanding of academic engagement. Hopefully, these findings can shed light on the current practices in higher education sector, informing educators to attend to and strengthen the affective elements in the academic context, so that they might be able to develop effective practices to promote students' engagement in their study, thereby contributing to student success in higher education.

Appendices

Appendix A: Adaptation of items for the scale of Affective Engagement

Affective Engagement		
Adopted items	**Replaced by**	**Justifications**
I feel good when I am in class.	---	
I find it interesting when I am in class.	---	
I feel excited when I am learning new things.	---	
Class in fun.	• I feel contented about what I have learned in my study. • I am happy when I am discussing topics with classmates. • I enjoy the academic discussion with lecturer.	Expanded to three items for specificity and better relevance to the higher education context
When we work on something in class, I get involved.		

Appendix B: Survey used for the pilot study

Part 1

The following questions ask about your learning experience. There are no right or wrong answers. Read each statement and circle the answer from 1 to 5, which best describes you. Please answer ALL questions.

1	*2*	*3*	*4*	*5*
Not at all confident	*… … … … … … … … … … … … … … … … … … … …*			*Very confident*

1.	Respond to questions asked by a lecturer in front of a whole class.	1	2	3	4	5
2.	Give a presentation to a small group of fellow students.	1	2	3	4	5
3.	Attend most lectures.	1	2	3	4	5
4.	Engage in profitable academic debate with your peers.	1	2	3	4	5
5.	Ask lecturers questions about the material they are teaching, during a lecture.	1	2	3	4	5
6.	Be on time for lectures.	1	2	3	4	5

Part 2

The following questions ask about your learning experience. There are no right or wrong answers. Read each statement and circle the answer from 1 to 5, which best describes you. Please answer ALL questions.

1	*2*	*3*	*4*	*5*
Disagree	*… …*			*Agree*

Part 2a

1.	I feel good when I am in class.	1	2	3	4	5
2.	I find it interesting when I am learning.	1	2	3	4	5
3.	I feel excited when I am learning new things.	1	2	3	4	5
4.	I feel contented about what I have learned in my study.	1	2	3	4	5
5.	I am happy when I am discussing topics with classmates.	1	2	3	4	5
6.	I enjoy the academic interaction with lecturers.	1	2	3	4	5

Part 2b

1.	I've often had trouble making sense of the things I have to remember.	1	2	3	4	5
2.	I've been over the work I've done to check my reasoning and see that it makes sense.	1	2	3	4	5
3.	I have usually set out to understand for myself the meaning of what we had to learn.	1	2	3	4	5
4.	I have generally put a lot of effort into my studying.	1	2	3	4	5
5.	Much of what I've learned seems no more than lots of unrelated bits and pieces in my mind.	1	2	3	4	5
6.	In making sense of new ideas, I have often related them to practical or real life contexts.	1	2	3	4	5
7.	On the whole, I've been quite systematic and organised in my studying.	1	2	3	4	5
8.	Ideas I've come across in m*y* academic reading often set me off on long chains of thought.	1	2	3	4	5
9.	I've looked at evidence carefully to reach my own conclusion about what I'm studying. ◦	1	2	3	4	5
10.	When I've been communicating ideas, I've thought over how well I've got my points across.	1	2	3	4	5
11.	I've organised my study time carefully to make the best use of it.	1	2	3	4	5
12.	It has been important for me to follow the argument to see the reasons behind things.	1	2	3	4	5
13.	I've tended to take what we've been taught at face value without questioning it much.	1	2	3	4	5
14.	I've tried to find better ways of tracking down relevant information in a subject.	1	2	3	4	5
15.	Concentration has not usually been a problem for me, unless I've been really tired.	1	2	3	4	5
16.	In reading for a course unit, I've tried to find out for myself exactly what the author means.	1	2	3	4	5
17.	I've just been going through the motions of studying without seeing where I'm going.	1	2	3	4	5
18.	If I've not understood things well enough when studying, I've tried a different approach.	1	2	3	4	5

Part 3
The following questions ask about your learning experience. There are no right or wrong answers. Read each statement and circle the answer from 1 to 7, which best describes you. Please answer ALL questions.

1	*2*	*3*	*4*	*5*	*6*	*7*
Not at all true of me			... ...			*Very true of me*

1	I often find myself questioning things I hear or read in this course to decide if I find them convincing.	1	2	3	4	5	6	7
2	When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.	1	2	3	4	5	6	7
3	I treat the course material as a starting point and try to develop my own ideas about it.	1	2	3	4	5	6	7
4	I try to play around with ideas of my own related to what I am learning in this course.	1	2	3	4	5	6	7
5	Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives.	1	2	3	4	5	6	7
6	During class time I often miss important points because I'm thinking of other things. (R)	1	2	3	4	5	6	7
7	When reading for this course, I make up questions to help focus my reading.	1	2	3	4	5	6	7
8	When I become confused about something I'm reading for this class, I go back and try to figure it out.	1	2	3	4	5	6	7
9	If course readings are difficult to understand, I change the way I read the material.	1	2	3	4	5	6	7
10	Before I study new course material thoroughly, I often skim it to see how it is organised.	1	2	3	4	5	6	7
11	I ask myself questions to make sure I understand the material I have been studying in this class.	1	2	3	4	5	6	7
12	I try to change the way I study in order to fit the course requirements and the instructor's teaching style.	1	2	3	4	5	6	7
13	I often find that I have been reading for this class but don't know what it was all about. (R)	1	2	3	4	5	6	7
14	I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for this course.	1	2	3	4	5	6	7
15	When studying for this course I try to determine which concepts I don't understand well.	1	2	3	4	5	6	7
16	When I study for this class, I set goals for myself in order to direct my activities in each study period.	1	2	3	4	5	6	7
17	If I get confused taking notes in class, I make sure I sort it out afterwards.	1	2	3	4	5	6	7
18	I often feel so lazy or bored when I study that I quit before I finish what I planned to do. (R)	1	2	3	4	5	6	7
19	I work hard to do well in this class even if I don't like what we are doing.	1	2	3	4	5	6	7
20	When course work is difficult, I give up. (R)	1	2	3	4	5	6	7
21	When course work is difficult, I only study the easy parts. (R)	1	2	3	4	5	6	7
22	Even when course materials are dull and uninteresting, I manage to keep working until I finish.	1	2	3	4	5	6	7

Part 4

Below are a series of statements that describe how you may think about yourself RIGHT NOW, relating to your school work aspects. Use the scale below to indicate your level of agreement or disagreement with each statement.

1	*2*	*3*	*4*	*5*	*6*
Strongly disagree	*Disagree*	*Somewhat disagree*	*Somewhat agree*	*Agree*	*Strongly agree*

1	I feel confident analyzing a difficult question to find a solution concerning my schoolwork.	1	2	3	4	5	6
2	I feel confident in presenting my ideas to lecturers.	1	2	3	4	5	6
3	I feel confident contributing to discussions about ideas on my schoolwork.	1	2	3	4	5	6
4	I feel confident setting my study goals.	1	2	3	4	5	6
5	I feel confident contacting people to discussing problems concerning my schoolwork with others.	1	2	3	4	5	6
6	I feel confident sharing information with other classmates.	1	2	3	4	5	6
7	If I should find myself in a jam about my schoolwork, I could think of many ways to get out of the jam.	1	2	3	4	5	6
8	At the present time, I am energetically pursuing my study goals.	1	2	3	4	5	6
9	There are lots of ways around any problem in my study/schoolwork.	1	2	3	4	5	6
10	Right now, I see myself as being pretty successful concerning my study.	1	2	3	4	5	6
11	I can think of many ways to reach my current study goals.	1	2	3	4	5	6
12	At this time, I am meeting the study goals that I have set for myself.	1	2	3	4	5	6
13	When I have a setback with schoolwork, I have trouble recovering from it and moving on. (R)	1	2	3	4	5	6
14	I usually manage difficulties one way or another in my study.	1	2	3	4	5	6
15	I can be "on my own" so to speak, if I have to regarding my schoolwork.	1	2	3	4	5	6
16	I usually take stressful things in stride with regard to my schoolwork. ◦	1	2	3	4	5	6
17	I can get through difficult times at school because I've experienced difficulty before concerning my study.	1	2	3	4	5	6
18	I feel I can handle many things at a time in my study.	1	2	3	4	5	6
19	When things are uncertain for me at study, I usually expect the best.	1	2	3	4	5	6
20	If something can go wrong for me with my schoolwork, it will. (R)	1	2	3	4	5	6
21	I always look on the bright side of things regarding my study.	1	2	3	4	5	6
22	I'm optimistic about what will happen to me in the future as it pertains to my study.	1	2	3	4	5	6
23	In my study, things never work out the way I want them to. (R)	1	2	3	4	5	6
24	I approach my study as if "every cloud has a silver lining".	1	2	3	4	5	6

Part 5

Personal particulars: Please fill out the accurate information or put a ✓ in the boxes provided

1. Gender : ☐ Male ☐Female

2. Age:

3. Year of study:

☐ Associate Degree Year 1 ☐ Associate Degree Year 2

☐ Undergraduate Year 3 ☐ Undergraduate Year 4

☐ Others, please specify:

5. Your cumulate GPA (cGPA): _____/4.0

If you have only completed one semester, please give your GPA for the last semester (Semester GPA):

6. Number of hours you spent on your study per week? _____ hours

7. Do you have part-time job? (If yes, please go to Q8) ☐ Yes ☐ No

8. No. of hours spent on part-time job: _____ hours

The end --- Thank you!

Appendix C: Revisions made to the survey after the pilot study

The survey was shortened from 76 items (pilot) to 69 items for the main study.

Scales revised:
ETLQ : Enhancing Teaching and Learning Questionnaire (Entwistle & McCune, 2004)
MSLQ: Motivated Strategies for Learning Questionnaire (Pintrich et al., 1991)

Cognitive engagement			
Scale	**Merged / deleted items**	**The modified item**	**Justifications**
ETLQ	I have usually set out to understand for myself the meaning of what we had to learn. (Merged with a MSLQ item)	I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for this course (from MSLQ)	Asking similar aspects and items in MSLQ being more specific.
ETLQ	Much of what I've learned seems no more than lots of unrelated bits and pieces in my mind. (Merged with a MSLQ item)	I often find that I have been reading for this class but don't know what it was all about (from MSLQ).	
ETLQ	If I've not understood things well enough when studying, I've tried a different approach. (Merged with a MSLQ item)	If course readings are difficult to understand, I change the way I read the material (from MSLQ).	
MSLQ	• I often find myself questioning things I hear or read in this course to decide if I find them convincing. • When a, or theory, interpretation conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.	When a theory, interpretation, or conclusion is presented in class or in the readings, I will question them and decide if there is good supporting evidence.	Improved clarity and specificity.
MSLQ	• When reading for this course, I make up questions to help focus my reading. • I ask myself questions to make sure I understand the material I have been studying in this class.	When reading for this course, I ask myself questions to make sure I understand the material.	
MSLQ	• I work hard to do well in this class even if I don't like what we are doing. • Even when course materials are dull and uninteresting, I manage to keep working until I finish.	Even when course materials are dull and uninteresting, which I don't like I manage to keep working until I finish.	
MSLQ	If I get confused taking notes in class, I make sure I sort it out afterwards.	When I become confused about something I'm reading for this class, I go back and try to figure it out.	More specific

Appendix D: The finalised survey (The English version for reference)

Informed consent form

As a PhD student studying in Durham University, I am currently conducting an academic research about learning experience of students from higher education in Hong Kong. The research aims to investigate the learning experience and psychological resources of university students. You are cordially invited to participate in this survey, which takes you about 20 minutes to finish.

Participation in the research is entirely voluntary and you can withdraw any time in the process. The data would provide valuable information for learning experience of students from higher education in Hong Kong. The data collected from this research would be used solely for research purpose. The responses you provided and your personal information will be kept strictly confidential and be protected with passwords. Your name and contact information will be stored separately from the questionnaire and kept in a safe place. Your information will not be identified in the reports of the research. If you have any questions about this research, you may contact me (Ms Esme Sung: esme.k.sung@durham.ac.uk) or my academic supervisor (Dr Julie Rattray: julie.rattray@durham.ac.uk)

Name: _____ Signature : _____ Date: _____

----------✂----------✂----------

If you are willing to share more about your learning experience, please provide your contact information as follows:

Name : _____

Email: _____

Phone: _____

Ref: _______________

Please answer **ALL** questions in this questionnaire. There are no right or wrong answers, just select the one best describes you.

Part 1

Read the following statements about your learning experience, please circle the answer from 1 to 5, which best describes you.

1	***2***	***3***	***4***	***5***
Strongly disagree	***… …***			***Strongly Agree***

1	I can respond to questions asked by a lecturer in front of a whole class.	1	2	3	4	5
2	I can give a presentation to a small group of fellow students.	1	2	3	4	5
3	I can attend most lectures.	1	2	3	4	5
4	I can engage in profitable academic debate with my peers.	1	2	3	4	5
5	I can ask lecturers questions about the material they are teaching, during a lecture.	1	2	3	4	5
6	I can arrive on time for lectures.	1	2	3	4	5
7	I feel good when I am in class.	1	2	3	4	5
8	I find it interesting when I am learning.	1	2	3	4	5
9	I feel excited when I am learning new things.	1	2	3	4	5
10	I feel contented about what I have learned in my study.	1	2	3	4	5
11	I am happy when I am discussing topics with classmates.	1	2	3	4	5
12	I enjoy the academic interaction with lecturers.	1	2	3	4	5

Part 2

Read the following statements about your learning experience in your **major programme,** please circle the answer from 1 to 5, which best describes you.

1	*2*	*3*	*4*	*5*
Strongly disagree	*... ... ...*			*Strongly Agree*

1	I've often had trouble making sense of the things I have to remember.	1	2	3	4	5
2	I've been over the work I've done to check my reasoning and see that it makes sense.	1	2	3	4	5
3	I have generally put a lot of effort into my studying.	1	2	3	4	5
4	Much of what I've learned seems no more than lots of unrelated bits and pieces in my mind.	1	2	3	4	5
5	In making sense of new ideas, I have often related them to practical or real life contexts.	1	2	3	4	5
6	On the whole, I've been quite systematic and organized in my studying.	1	2	3	4	5
7	Ideas I've come across in m*y* academic reading often set me off on long chains of thought.	1	2	3	4	5
8	I've looked at evidence carefully to reach my own conclusion about what I'm studying. ◦	1	2	3	4	5
9	When I've been communicating ideas, I've thought over how well I've got my points across.	1	2	3	4	5
10	I've organised my study time carefully to make the best use of it.	1	2	3	4	5
11	It has been important for me to follow the argument to see the reasons behind things.	1	2	3	4	5
12	I've tended to take what we've been taught at face value without questioning it much.	1	2	3	4	5
13	I've tried to find better ways of tracking down relevant information in a subject.	1	2	3	4	5
14	Concentration has not usually been a problem for me, unless I've been really tired.	1	2	3	4	5
15	In reading for a course unit, I've tried to find out for myself exactly what the author means.	1	2	3	4	5
16	I've just been going through the motions of studying without seeing where I'm going.	1	2	3	4	5

Part 3

Read the following statements about your learning experience in your **major programme,** please circle the answer from 1 to 5, which best describes you.

1	*2*	*3*	*4*	*5*
Strongly disagree	*... ... ...*			*Strongly Agree*

1	When a theory, interpretation, or conclusion is presented in class or in the readings, I will question them and see if there is good supporting evidence.	1	2	3	4	5
2	I treat the course material as a starting point and try to develop my own ideas about it.	1	2	3	4	5
3	I try to play around with ideas of my own related to what I am learning in this course.	1	2	3	4	5
4	Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives.	1	2	3	4	5
5	During class time I often miss important points because I'm thinking of other things. (R)	1	2	3	4	5
6	When I become confused about something I'm reading for this class, I go back and try to figure it out.	1	2	3	4	5
7	If course readings are difficult to understand, I change the way I read the material.	1	2	3	4	5
8	Before I study new course material thoroughly, I often skim it to see how it is organized. ◦	1	2	3	4	5
9	When reading and studying for this course, I ask myself questions to make sure I understand the material.	1	2	3	4	5
10	I try to change the way I study in order to fit the course requirements and the instructor's teaching style.	1	2	3	4	5
11	I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for this course.	1	2	3	4	5
12	When studying for this course I try to determine which concepts I don't understand well.	1	2	3	4	5
13	When I study for this class, I set goals for myself in order to direct my activities in each study period.	1	2	3	4	5
14	I often feel so lazy or bored when I study that I quit before I finish what I planned to do. (R)	1	2	3	4	5
15	When course work is difficult, I give up. (R)	1	2	3	4	5
16	When course work is difficult, I only study the easy parts. (R)	1	2	3	4	5
17	Even when course materials are dull and uninteresting, which I don't like I manage to keep working until I finish.	1	2	3	4	5

Part 4

Below are a series of statements that describe how you may think about yourself **RIGHT NOW**, relating to your school work aspects. Use the scale below to indicate your level of agreement or disagreement with each statement.

1	*2*	*3*	*4*	*5*
Strongly disagree	*… … … … … … … … … … … … … … …… … … … …*			*Strongly Agree*

1	I feel confident analyzing a difficult question to find a solution concerning my schoolwork.	1	2	3	4	5
2	I feel confident in presenting my ideas to lecturers.	1	2	3	4	5
3	I feel confident contributing to discussions about ideas on my schoolwork.	1	2	3	4	5
4	I feel confident setting my study goals.	1	2	3	4	5
5	I feel confident contacting people to discussing problems concerning my schoolwork with others. ◦	1	2	3	4	5
6	I feel confident sharing information with other classmates.	1	2	3	4	5
7	If I should find myself in a jam about my schoolwork, I could think of many ways to get out of the jam.	1	2	3	4	5
8	At the present time, I am energetically pursuing my study goals.	1	2	3	4	5
9	There are lots of ways around any problem in my study/schoolwork.	1	2	3	4	5
10	Right now, I see myself as being pretty successful concerning my study.	1	2	3	4	5
11	I can think of many ways to reach my current study goals.	1	2	3	4	5
12	At this time, I am meeting the study goals that I have set for myself.	1	2	3	4	5
13	When I have a setback with schoolwork, I have trouble recovering from it and moving on. (R)	1	2	3	4	5
14	I usually manage difficulties one way or another in my study.	1	2	3	4	5
15	I can be "on my own" so to speak, if I have to regarding my schoolwork.	1	2	3	4	5
16	I usually take stressful things in stride with regard to my schoolwork. ◦	1	2	3	4	5
17	I can get through difficult times at school because I've experienced difficulty before concerning my study.	1	2	3	4	5
18	I feel I can handle many things at a time in my study. ◦	1	2	3	4	5
19	When things are uncertain for me at study, I usually expect the best.	1	2	3	4	5
20	If something can go wrong for me with my schoolwork, it will. (R)	1	2	3	4	5
21	I always look on the bright side of things regarding my study.	1	2	3	4	5
22	I'm optimistic about what will happen to me in the future as it pertains to my study.	1	2	3	4	5
23	In my study, things never work out the way I want them to. (R)	1	2	3	4	5
24	I approach my study as if "every cloud has a silver lining".	1	2	3	4	5

Part 5

Personal particulars: Please fill out the accurate information or put a ✓ in the boxes provided

1. Gender : ☐ Male ☐ Female

2. Age: _____

3. Year of study:
☐ Associate Degree Year 1
☐ Associate Degree Year 2
☐ Undergraduate Year 3
☐ Undergraduate Year 4
☐ Others, please specify: _____

5. Your cumulate GPA (cGPA):
If you have only completed one semester, please give your GPA for the last semester (Semester GPA): _____ / 4.0

6. Number of hours you spent on your study per week? _____ Hours

7. Do you have part-time job? (If yes, please go to Q8) ☐ Yes ☐ No

8. No. of hours spent on part-time job: _____ Hours

The end --- Thank you!

Appendix E: The finalised survey (The Chinese version used in the main study)

研究同意書

本人是 Durham University 教育學院博士研究生，現正進行一項關於香港大專學生學習經驗的學術研究，旨在探討大學生的學習經驗與心理質素，懇請你抽出大約 20 分鐘時間填寫這份問卷。

參與是次研究純屬自願性質，過程中你可以隨時退出，研究數據將對香港大專學生的學習經驗提供寶貴的資料。本研究所收集的資料只作研究用途，你提供的回應及個人資料將會絕對保密，並加上密碼保護。 你的姓名及聯絡方法將會與問卷分開，並會被妥善儲存。研究報告中亦不會展示任何資料能辨認出你的身分。

如日後你對這項研究有任何查詢，歡迎與本人(Ms Esme Sung: esme.k.sung@durham.ac.uk) 或本人之導師 (Dr Julie Rattray: julie.rattray@durham.ac.uk) 聯絡。

姓名:_____ 簽名: _____ 日期: _____

----------✂----------✂----------

如你樂意分享多一點你的學習經驗，請在以下空格填寫你的聯絡方法，
本人會再聯絡你稍後進行簡單的訪問：

姓名 (中文及英文) : _____

電郵: _____

電話: _____

Ref: _____

第一部分

根據你的**學習情況**，細閱以下句子，從 1 至 5 圈出最能代表你的答案，答案並沒有對錯之分。請回答**所有**題目。

		非常不同意				非常同意
1.	我能夠在全班面前回應導師的提問。	1	2	3	4	5
2.	我能夠向一少群同學作出匯報。	1	2	3	4	5
3.	我能夠出席大部分的課堂。	1	2	3	4	5
4.	我能夠和同學進行學術討論，大家都有所得著。	1	2	3	4	5
5.	在課堂中，我能夠就導師所教授的內容作出提問。	1	2	3	4	5
6.	我能夠準時出席課堂。	1	2	3	4	5
7.	上課時，我感覺良好。	1	2	3	4	5
8.	我對於學習感到有興趣。	1	2	3	4	5
9.	學習新事物令我感到雀躍。	1	2	3	4	5
10.	現時所學到的知識令我感到滿足。	1	2	3	4	5
11.	與同學討論一些課題時，我感到愉快。	1	2	3	4	5
12.	我喜歡和導師作學術上的交流。	1	2	3	4	5

第二部分

根據你在**主修科目**的**學習情況**，細閱以下句子，從 1 至 5 圈出最能代表你的答案，答案並沒有對錯之分。請回答**所有**題目。

		非常不同意				非常同意
1.	對於自己需要記得的內容，我往往都有困難去理解。	1	2	3	4	5
2.	我仔細查看自己在已完成的作業中的推論是否合理。	1	2	3	4	5
3.	整體來說，我付出很多努力去學習 。	1	2	3	4	5
4.	大部分我曾經學過的東西，在我腦中只不過是毫無關連的零碎部分。	1	2	3	4	5
5.	為了理解新意念，我時常都將它們和日常生活的處境作出聯繫。	1	2	3	4	5
6.	整體來說，我能有系統、有條理地安排自己的學習。	1	2	3	4	5
7.	在學術文章中得出一些想法，會開啟我一連串的思考。	1	2	3	4	5
8.	對於現時的學習，我會仔細查看相關的理據，才得出結論。	1	2	3	4	5
9.	當我要傳遞意念時，我會仔細考慮怎樣能有效地表達重點 。	1	2	3	4	5
10.	我仔細地分配學習時間，並能充分運用。	1	2	3	4	5
11.	對我來說，明白論點背後的原因是重要的。	1	2	3	4	5
12.	我傾向接收授課內容的表層意思，並不會作出進一步的提問。	1	2	3	4	5
13.	我嘗試運用其他方法去搜尋和這科相關的資料。	1	2	3	4	5
14.	除非我真的很疲累，否則，對我來說專注學習通常都沒有困難。	1	2	3	4	5
15.	閱讀這科的文章時，我嘗試理解作者確切想表達的意思。	1	2	3	4	5
16.	我現在只不過是漫無目的地進行一些學習活動。	1	2	3	4	5

第三部分

根據你在**主修科目**的**學習情況**，細閱以下句子，從 1 至 5 圈出最能代表你的答案，答案並沒有對錯之分。請回答**所有**題目。

		非常不同意				非常同意
1.	對於課堂或文章中提及的理論、演繹或結論，我會嘗試透過提問去判斷它們是否具備充分的証據去支持。	1	2	3	4	5
2.	我視課程內容為起點，嘗試繼續深化自己的見解。	1	2	3	4	5
3.	我嘗試將在這科學到的內容和原來已有的想法作出一些整合。	1	2	3	4	5
4.	對於課堂中提及到的立場或結論，我會聯想到其他可能性。	1	2	3	4	5
5.	上課時，我時常會因為想著其他事情而錯過課堂重點。(R)	1	2	3	4	5
6.	對這科內容有不明白時，我會稍後再想，並嘗試理解。	1	2	3	4	5
7.	遇到難以理解的內容，我會改變溫習方法。	1	2	3	4	5
8.	仔細學習新的內容前，我通常會先快速瀏覽一遍，了解課程的整體架構。	1	2	3	4	5
9.	對這科內容有不明白時，我會提問自己一些問題，確保自己明白這科的內容。	1	2	3	4	5
10.	為配合學科要求和導師教學方式，我會嘗試改變自己的學習方法。	1	2	3	4	5
11.	除了重複溫習，我嘗試針對一個課題作出全面思考，掌握這科的學習。	1	2	3	4	5
12.	學習這科時，我嘗試找出一些自己不太明白的概念。	1	2	3	4	5
13.	學習這科時，我為自己訂下目標，以便更明確及清晰地安排溫習內容。	1	2	3	4	5
14.	當我溫習時，我時常因為懶惰或感到沉悶，提早放棄預計要完成的學習。(R)	1	2	3	4	5
15.	遇到困難的功課，我會放棄。(R)	1	2	3	4	5
16.	遇到困難的功課，我只會完成容易的部分。(R)	1	2	3	4	5
17.	即使對課程內容感到沉悶及沒興趣，我都會繼續工作直至完成。	1	2	3	4	5

第四部分
請根據你**現時**對於**學習的想法**，細閱以下句子，從 1 至 5 選出最能代表你的答案，答案並沒有對錯之分。請回答**所有**題目。

		非常不同意				非常同意
1.	我相信自己有能力去分析困難的題目，並想到解決方法。	1	2	3	4	5
2.	我相信自己有能力向導師表達自己的想法。	1	2	3	4	5
3.	我相信自己有能力在討論中提出良好的建議。	1	2	3	4	5
4.	我相信自己有能力訂立個人學習目標。	1	2	3	4	5
5.	我相信自己有能力找別人商討學習上遇到的問題。	1	2	3	4	5
6.	我相信自己有能力向其他同學表達意見。	1	2	3	4	5
7.	當我遇到學業困難，我能想到許多方法幫助自己走出困局。	1	2	3	4	5
8.	我正在積極地追求自己的學習目標。	1	2	3	4	5
9.	面對任何學業問題，都有許多解決方法 。	1	2	3	4	5
10.	到目前為止，我認為自己的學業尚算順利。	1	2	3	4	5
11.	我能想到許多方法達成目前的學習目標。	1	2	3	4	5
12.	我正在逐步邁向自己訂立的學習目標。	1	2	3	4	5
13.	面對學業上的挫折，我有困難重新振作和繼續向前。(R)	1	2	3	4	5
14.	我通常都能夠想到不同方法解決學業上遇到的困難。	1	2	3	4	5
15.	我能夠靠自己的能力應付學業。	1	2	3	4	5
16.	我通常都能夠輕鬆面對學業壓力。	1	2	3	4	5
17.	我能夠運用過去類似的經歷，去跨過目前在學習上遇到的困難。	1	2	3	4	5
18.	面對學業上的不同事情，我認為自己能夠逐一應付。	1	2	3	4	5
19	面對學業的未知之數，我通常都期待最好的結果。	1	2	3	4	5
20.	我認為我的學業會出現問題。(R)	1	2	3	4	5
21.	我常常會看到學業上正面的事。	1	2	3	4	5
22.	我對學業前境感到樂觀。	1	2	3	4	5
23.	學業上發生的事情，總是和我的期望相反。(R)	1	2	3	4	5
24.	我認為學業上即使遇到多大的困難，最終也會迎刃而解。	1	2	3	4	5

第五部分

個人資料 (請填上正確資料或在方格上填上 ✓)

1. 年齡:

2. 性別: ☐ 男 ☐女

3. 年級 (9 月前): ☐ 副學士一年級 ☐ 副學士二年級 ☐ 學士學位三年級 ☐ 學士學位四年級 ☐ 其他，請註明：

4a. 9 月前的副學士專修: (學士學位同學請跳至 4b)

人文及語言學部
- ☐ 雙語語言及文學研究
- ☐ 專業中文
- ☐ 文化研究
- ☐ 音樂學
- ☐ 視覺藝術

商學部
- ☐ 工商管理
- ☐ 商業經濟學
- ☐ 創業與管理
- ☐ 財務管理
- ☐ 市場學
- ☐ 專業會計學
- ☐ 旅遊及款待業管理

傳理學部
- ☐ 傳理學
- ☐ 創意數碼媒體設計
- ☐ 創意媒體寫作
- ☐ 電影、電視及數碼媒體學
- ☐ 新聞學
- ☐ 媒體傳播

社會科學學部
- ☐ 應用社會服務
- ☐ 歷史及香港研究
- ☐ 心理學
- ☐ 社會及公共政策研究
- ☐ 運動及康樂學

應用科學學部
- ☐ 計算機科學
- ☐ 環境保育學
- ☐ 食物安全及環境健康
- ☐ 地理及資源管理
- ☐ 生命科學
- ☐ 流動資訊科技
- ☐ 營養與食物管理
- ☐ 檢測及認證
- ☐ 樹木管理

4b. 9 月前的學士學位主修: (副學士同學

文學院
- ☐ 通識及文化研究
- ☐ 音樂學

傳理學院
- ☐ 新媒體及影視創意寫作
- ☐ 綜合傳播管理學
- ☐ 媒體及社會傳播

商學院
- ☐ 會計學
- ☐ 人力資源管理學
- ☐ 市場學

社會科學院
- ☐ 環境及資源管理
- ☐ 心理學
- ☐ 社會政策

5. 你的累積平均積點 (cGPA):

若只完成一個學期學習，請填寫上個學期平均積點 (Semester GPA:___/4.0)

6. 除了上課，你每星期大約花少多時間在學業上? 小時

7. 你有兼職工作嗎? (如有，請填寫第 8 題) ☐ 有 ☐ 沒有

8. 若有，你每星期大約工作時間多少? 小時

全問卷完 --- 謝謝你的參與

Appendix F: Interview guide for the semi-structured interview

To explore:
The interrelationship between academic engagement, psychological resources, and learning outcomes in higher education.

Part 1: About academic engagement

Warm-up questions

- Can you describe your learning experience so far in the college, using 3 adjectives?
- In order to really learn something in your study, what do you have to do?
- Some people think that involving in learning is beneficial to students, what do you think?
- How much do you think you are involved in your learning? (e.g. time, effort, persistence, thinking devoted to learning)

Core questions

1. **Can you recall and describe a moment when you found yourself really involved in learning during your study?**
    a. How was the moment like?
    b. What did you do by then?
    c. How did you feel?
    d. What was in your mind?
    e. Can you tell me more about that learning experience?
2. **Can you recall and describe a moment when you found yourself detaching from learning during your study?**
    a. How was the moment like?
    b. What did you do by then?
    c. How did you feel?
    d. What was in your mind?
    e. Can you tell me more about that learning experience?
3. **Regarding the two scenarios you have just described, one of which you were really involved in the earning while in another you found yourself detached rom learning, what are the factors influencing them?**
    a. What are the things which help you to get more involved in learning?
    b. What are the things which discourage you from learning at all?
    c. Any factors from the college which make the differences? (May prompt some factors like learning atmosphere, peers, teachers, level of difficulty, interest towards the subject etc. if the participants cannot associate any)
    d. Anything more you want to share?

More probing questions (optional, may skip if some answers are provided in the above)

- What makes you devote your time and focus on learning? (e.g. attending lectures, paying attention, jotting down notes, completing assignments) How would that affect your learning? (Tapping behavioural engagement)
- What makes you feel good when learning? (e.g. interest, enthusiasm in learning) How would that affect your learning? [Tapping affective engagement]
- What make you persist in learning even when you come across difficult course materials? How would you help yourself to understand those materials? How would that affect your learning? [Tapping cognitive engagement]

Part 2: About psychological resources

Core questions

4. What helped you persist in your study when you faced setbacks and challenges?

- How would these beliefs change over time in the course of your learning?

More probing questions (optional, may skip if some answers are provided in the above)

- If you have higher levels of the inner qualities you have just mentioned, how would your learning experience be different?
- Can you recall a moment in learning when you:
    a. Feel hopeful
    b. Feel confident about yourself
    c. Feel you can overcome difficulties and obstacles ahead
    d. Feel positive and optimistic
- How does each of the above moment influence your learning?

Part 3: About learning outcomes in higher education

- What do you think are important outcomes of higher education learning?
- Do you enjoy learning here?
    a. What are the things you enjoy most?
    b. What are the things you don't enjoy?
- Are there anything in the college which are helping you get engaged in learning?
- Are they anything in the college which are strengthening your inner qualities for learning?

Appendix G: Ethics approval from School of Education, Durham University

Durham University
School of Education

Shaped by the past, creating the future

30th May 2017

Esme Kam Ping Sung
Esme.k.sung@durham.ac.uk

Dear Esme

Inter-relationships between student engagement and psychological resources

I am pleased to inform you that your ethics application for the above research project has been approved by the School of Education Ethics Committee.

May we take this opportunity to wish you good luck with your research.

Yours sincerely,

Nadin Beckmann

Dr Nadin Beckmann
School of Education Ethics Committee Chair

Leazes Road
Durham, DH1 1TA
Telephone +44 (0)191 334 2000 Fax +44 (0)191 334 8311
www.durham.ac.uk/education

Appendix H: Agreement of data collection in Harmony University

Conducting Research and Data Collection at CIE

In order to ensure that your research and collection of data have met the guidelines set out by the HKBU Committee on Human & Animal Subjects in Teaching and Research (HASC), the following are some guidelines and checklist for your attention.

A. Purpose of Informed Consent Statement

An Informed Consent Statement, which must be given to all participants and potential participants, has two purposes:

- To enable potential research subjects to make an informed choice as to their participation in a study
- To document their decision to participate.

The purpose of the research must be stated clearly in simple and accessible language so that the participants could easily understand what the study is about.

B. Collection of Data through questionnaire

The informed consent statement must be provided to the participants before he or she participates in the study. Please ensure that the following must be clearly stated in the Informed Consent statement.

- ☐ Purpose of the study
- ☐ Total duration of the study
- ☐ Amount of time the participant will need to participate in the study
- ☐ Confidentiality
- ☐ Anonymity
- ☐ Compensation, if any
- ☐ Name of Researcher
- ☐ Contacts of Researcher
- ☐ Participation is voluntary, refusal to participate shall not involve any penalty
- ☐ Participant may withdraw from study at any time without penalty.

C. Manner of Conducting Survey

If survey is conducted online, please ensure that all the components in the informed consent are clearly stated at the beginning of the qualtrics or other online survey instruments. If the survey is conducted over the phone, please make sure that they are read out to the interviewee. If the survey is conducted on paper during class, please ensure that they are stated clearly at the beginning of the questionnaire.

☐ It is recommended that the survey be conducted during break time so that lessons will not be interrupted.

☐ If it is conducted during class time, please ensure that the questionnaire should not be unduly long.

D. Collection of data through interviews and focus groups

In conducting focus groups or individual interviews, all the components in the informed consent in Section B must be stated and made clear to the participant(s). In addition, if you plan to use audio-tape or videotape, you must provide in writing a statement to the interviewee(s) to seek their consent and to state clearly the following:

☐ purpose of the audio or video tape

☐ who will have access to or view the tapes

☐ whether participant(s) be allowed to preview the tapes

☐ what will happen to the tapes at the end of the study

☐ all possible use of the tape must be described

☐ the tapes/films/photos will not be used for any additional purposes without their additional permission.

Declaration by Principal Investigator

I hereby declare that I conform to the following:

1) I acknowledge the rights and welfare of the participants involved and my responsibility as investigator to secure the informed consent of the participants by explaining the procedures and describing the risks (if any) and benefits (if any) of the investigation.
2) I shall ensure that the research project be conducted in accordance with prevailing standards of research ethics in the academic community. Any changes in the procedure will be reported to the College in a timely fashion.
3) I understand that it is the sole responsibility of the researcher to ensure that the research is in full compliance with the Personal Data (Privacy) Ordinance.

Signature: Esme

Name of Principal Investigator: Esme Sung

Date: 22 May 2017

Appendix I: The codebook for analysing the interview data

"A priori codes" reflecting indicators of academic engagement and PsyCap	
Behavioural engagement - Actions and practices directed toward learning	**RQs**
• Involvement in learning and academic tasks • Concentration • Asking questions • Contributing to classroom discussions • On-task behaviours • Disengaged: withdraw, distracted, inattentive, unprepared, giving up	RQ2
Cognitive engagement - Psychological investment in learning	

• Willing to invest in learning and go beyond the basic requirements to master different skills
• Motivated to learning, valuing learning, striving for knowledge and mastery in learning situations
• Use of metacognitive strategies:
  • Rehearsal, summarising, elaboration to remember, organise and understand the materials
• A deep approach learning - exert more mental effort, create connection among ideas, achieve greater understanding of ideas
• Self-regulated learning:
  • students' metacognitive strategies for planning, monitoring and modifying their cognition
  • students' management and control of effort on classroom academic tasks
• students' actual strategies used to learn, remember and understand the material	

Affective engagement – Affective reactions and interest towards learning	RQ2 & RQ3
• Belongingness and relatedness • Peer relationship • Relationship with lecturers • Positive emotions, e.g. interest, happiness, enthusiasm, optimism, enjoyment, satisfaction, pride, curiosity. • Interest in learning and the value students place on learning Negative emotions, e.g. disinterest, sadness, worry/anxiety, frustration/anger	
Psychological capital - Positive psychological capacities	RQ3
• Hope – determination and multiple pathways • Self-efficacy – perceived ability to complete academic tasks • Academic resilience – bounce back from setbacks to create positive change • Optimism – positive expectancy for future events and positive explanatory style for past events	
Emergent codes reflecting affective dimension of learning / facilitators of engagement	
• Academic discussion with lecturers • Bonding with lecturers • Lecturers' attributes • Peer discussion and support • Emotional experiences associated with understanding • Progression of interest in learning promoting engagement	RQ2 & RQ3

RQ2 - students' experience and perception of academic engagement
RQ3 - students' experience and perception of the affective dimension of learning

Appendix J: *T*-test results comparing two modes of survey completion

	Mode of survey completion (Printed=194; Online = 76)				*T*-test for Equality of Means		
Scale	**Mode**	**Mean**	**SD**		**t**	**df**	**Sig. (2-tailed)**
BE	Printed	3.89	0.54	Equal variances assumed	-2.51	268	.02
	Online	4.07	0.53	Equal variances not assumed	-2.53	139.49	.02
AE	Printed	3.73	0.60	Equal variances assumed	0.04	268	.97
	Online	3.73	0.73	Equal variances not assumed	0.04	117.51	.97
CE	Printed	3.44	0.42	Equal variances assumed	-1.86	268	.07
	Online	3.55	0.52	Equal variances not assumed	-1.69	114.91	.09
CE-ATL	Printed	3.47	0.45	Equal variances assumed	-1.13	268	.26
	Online	3.54	0.55	Equal variances not assumed	-1.03	115.64	.31
CE-SRL	Printed	3.41	0.46	Equal variances assumed	-2.33	268	.02
	Online	3.56	0.53	Equal variances not assumed	-2.18	120.80	.03
Acad Eng	Printed	3.54	0.41	Equal variances assumed	-1.78	268	.08
	Online	3.64	0.52	Equal variances not assumed	-1.61	114.02	.11
SE	Printed	3.74	0.61	Equal variances assumed	-1.03	268	.31
	Online	3.83	0.69	Equal variances not assumed	-0.98	124.81	.33
H	Printed	3.54	0.69	Equal variances assumed	-0.32	268	.75
	Online	3.57	0.76	Equal variances not assumed	-0.31	126.93	.76
RES	Printed	3.43	0.55	Equal variances assumed	-0.04	268	.97
	Online	3.44	0.74	Equal variances not assumed	-0.04	108.74	.97
OPT	Printed	3.28	0.66	Equal variances assumed	0.30	268	.77
	Online	3.25	0.80	Equal variances not assumed	0.28	116.88	.78
PsyCap	Printed	3.50	0.51	Equal variances assumed	-0.32	268	.75
	Online	3.52	0.65	Equal variances not assumed	-0.28	113.13	.78

BE: Behavioural Engagement AE: Affective Engagement; CE: Cognitive Engagement
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SRL: Cognitive Engagement-Self-regulation learning: Acad Eng: Composite Academic Engagement
SE: Self-efficacy: HOPE: Hope: RES: Academic Resilience; OPT: Optimism
PsyCap: Composite Psychological Capital

Appendix K: *T*-test results comparing male and female participants.

	Male (M): n=112; Female (F): n=158				*T*-test for Equality of Means		
Scale	**Gender**	**Mean**	**SD**		**t**	**df**	**Sig. (2-tailed)**
BE	M	4.00	0.53	Equal variances assumed	1.44	268	.152
	F	3.90	0.55	Equal variances not assumed	1.44	243.48	.150
AE	M	3.76	0.66	Equal variances assumed	0.66	268	.508
	F	3.71	0.62	Equal variances not assumed	0.66	230.27	.512
CE	M	3.52	0.48	Equal variances assumed	1.02	268	.307
	F	3.46	0.47	Equal variances not assumed	1.02	235.08	.310
CE-ATL	M	3.52	0.46	Equal variances assumed	1.81	268	.071
	F	3.41	0.49	Equal variances not assumed	1.83	248.34	.068
CE-SRL	M	3.52	0.44	Equal variances assumed	1.52	268	.129
	F	3.44	0.46	Equal variances not assumed	1.53	243.83	.127
Acad Eng	M	3.62	0.44	Equal variances assumed	1.49	268	.137
	F	3.53	0.45	Equal variances not assumed	1.50	241.40	.136
SE	M	3.80	0.69	Equal variances assumed	0.76	268	.448
	F	3.74	0.59	Equal variances not assumed	0.74	214.48	.460
H	M	3.61	0.74	Equal variances assumed	1.14	268	.254
	F	3.51	0.69	Equal variances not assumed	1.13	229.32	.259
RES	M	3.51	0.62	Equal variances assumed	1.85	268	.065
	F	3.38	0.60	Equal variances not assumed	1.84	234.52	.067
OPT	M	3.25	0.71	Equal variances assumed	-0.52	268	.604
	F	3.29	0.70	Equal variances not assumed	-0.52	237.40	.605
PsyCap	M	3.54	0.57	Equal variances assumed	0.92	268	.360
	F	3.48	0.55	Equal variances not assumed	0.91	233.60	.363

BE: Behavioural Engagement AE: Affective Engagement; CE: Cognitive Engagement
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SRL: Cognitive Engagement-Self-regulation learning: Acad Eng: Composite Academic Engagement
SE: Self-efficacy: HOPE: Hope: RES: Academic Resilience; OPT: Optimism
PsyCap: Composite Psychological Capital

Appendix L: *T*-test results comparing AD and UG participants.

Level of study AD: n=148; UG: n=122					t-test for Equality of Means		
Scale	**Level**	**Mean**	**SD**		**t**	**df**	**Sig. (2-tailed)**
BE	AD	4.05	0.54	Equal variances assumed	3.839	267	.000
	UG	3.80	0.52	Equal variances not assumed	3.853	259.807	.000
AE	AD	3.79	0.69	Equal variances assumed	1.603	267	.110
	UG	3.66	0.57	Equal variances not assumed	1.635	266.993	.103
CE	AD	3.52	0.49	Equal variances assumed	2.022	267	.044
	UG	3.41	0.40	Equal variances not assumed	2.063	266.998	.040
CE-ATL	AD	3.52	0.50	Equal variances assumed	1.316	267	.189
	UG	3.45	0.44	Equal variances not assumed	1.335	265.865	.183
CE-SR	AD	3.52	0.51	Equal variances assumed	2.441	267	.015
	UG	3.38	0.43	Equal variances not assumed	2.483	266.769	.014
AcadEng	AD	3.63	0.48	Equal variances assumed	2.431	267	.016
	UG	3.50	0.39	Equal variances not assumed	2.483	266.964	.014
SE	AD	3.83	0.67	Equal variances assumed	1.711	267	.088
	UG	3.69	0.59	Equal variances not assumed	1.733	265.356	.084
H	AD	3.54	0.79	Equal variances assumed	-.220	267	.826
	UG	3.56	0.61	Equal variances not assumed	-.226	266.317	.822
RES	AD	3.42	0.64	Equal variances assumed	-.321	267	.748
	UG	3.45	0.57	Equal variances not assumed	-.325	264.289	.746
OPT	AD	3.22	0.74	Equal variances assumed	-1.518	267	.130
	UG	3.35	0.65	Equal variances not assumed	-1.537	265.293	.126
PsyCap	AD	3.50	0.60	Equal variances assumed	-.150	267	.881
	UG	3.51	0.50	Equal variances not assumed	-.152	266.731	.879

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SRL: Cognitive Engagement-Self-regulated learning; Acad Eng: Composite Academic Engagement;
SE: Self-efficacy; H: Hope; RES: Academic Resilience; OPT: Optimism;
PsyCap: Composite Psychological Capital

Appendix M: Correlation matrix between scales of Academic engagement and PsyCap for AD students (n=148).

		1 BE	2 AE	3 CE	4 CE-ATL	5 CE-SRL	6 Acad Eng	7 SE	8 H	9 RES	10 OPT
1	BE	-									
2	AE	.66**	-								
3	CE	.67**	.70**	-							
3	CE-ATL	.65**	.73**	.95**	-						
4	CE-SRL	.63**	.61**	.96**	.83**	-					
6	Acad Eng	.77**	.81**	.98**	.95**	.93**	-				
7	SE	.76**	.57**	.76**	.72**	.74**	.79**	-			
8	H	.52**	.61**	.72**	.70**	.68**	.73**	.61**	-		
9	RES	.54**	.64**	.71**	.670*	.70**	.74**	.63**	.73**	-	
10	OPT	.38**	.53**	.51**	.50**	.48**	.54**	.40**	.66**	.71**	-
11	PsyCap	.64**	.69**	.79**	.76**	.76**	.82**	.77**	.89**	.90**	.82**

Note: ** $p < .01$

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;

CE-ATL: Cognitive Engagement-Approaches to Learning;

CE-SR: Cognitive Engagement-Self-regulation Learning

Acad Eng: Composite Academic Engagemet; SE: Self-efficacy; H: Hope

RES: Academic Resilience; OPT: Optimism; PsyCap: Composite Psychological Capital

Appendix N: Correlations matrix between scales of Academic engagement and PsyCap for UG students (n=122).

		1 BE	2 AE	3 CE	4 CE-ATL	5 CE-SRL	6 Acad Eng	7 SE	8 H	9 RES	10 OPT
1	BE	-									
2	AE	.53*	-								
3	CE	.56**	.61**	-							
4	CE-ATL	.54**	.54**	.91**	-						
5	CE-SRL	.49**	.56**	.92**	.66**	-					
6	Acad Eng	.71**	.75**	.97**	.88**	.88**	-				
7	SE	.41**	.31**	.57**	.50**	.54**	.56**	-			
8	H	.50**	.54**	.67**	.59**	.62**	.70**	.56**	-		
9	RES	.38**	.35**	.52**	.47**	.49**	.53**	.53**	.73**	-	
10	OPT	.21*	.23*	.43**	.38**	.40**	.41**	.48**	.62**	.62**	-
11	PsyCap	.44**	.43**	.66**	.58**	.61**	.66**	.77**	.88**	.86**	.83**

Note: ** p< .01

BE: Behavioural Engagement; AE: Affective Engagement; CE: Cognitive Engagement;
CE-ATL: Cognitive Engagement-Approaches to Learning;
CE-SR: Cognitive Engagement-Self-regulation Learning
Acad Eng: Composite Academic Engagemet; SE: Self-efficacy; H: Hope
RES: Academic Resilience; OPT: Optimism; PsyCap: Composite Psychological Capital

Appendix O: Comparing correlations between Academic Engagement and PsyCap

Correlations	z-score	p-value
BE-PsyCap and AE-PsyCap	-0.68	0.493
BE-PsyCap and CE-PsyCap	-3.84	0.000
AE-PsyCap and CE-PsyCap	-3.15	0.002
BE-Self-efficacy and AE-Self-efficacy	2.33	0.020
BE-Self-efficacy and CE-Self-efficacy	-1.42	0.155
AE-Self-efficacy and CE-Self-efficacy	-3.76	0.000
BE-Hope and AE-Hope	-1.46	0.144
BE-Hope and CE-Hope	-3.83	0.000
AE-Hope and CE-Hope	-2.37	0.018
BE-Academic Resilience and AE- Academic Resilience	-1.07	0.283
BE-Academic Resilience and CE-Academic Resilience	-3.01	0.003
AE-Academic Resilience and CE- Academic Resilience	-1.94	0.052
BE-Optimism and AE-Optimism	-1.57	0.116
BE-Optimism and CE-Optimism	-2.42	0.015
AE-Optimism and CE-Optimism	-0.85	0.395

Appendix P: Scatterplots of simple regression models showing relationships between PsyCap and Academic Engagement in AD and UG participants

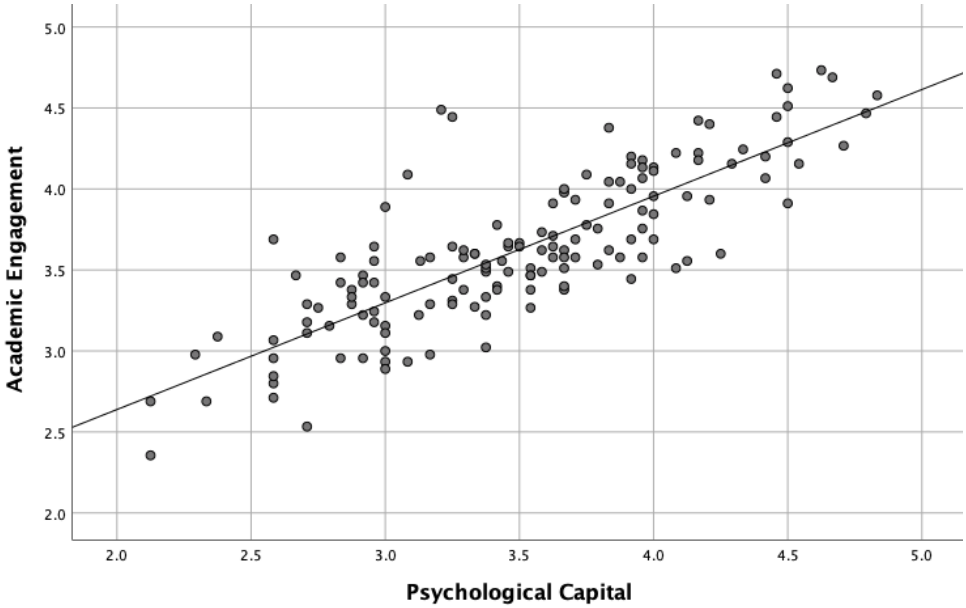


Figure P1. A scatterplot of PsyCap predicting Academic Engagement in AD students in a simple regression model (R^2= .670, n=148).

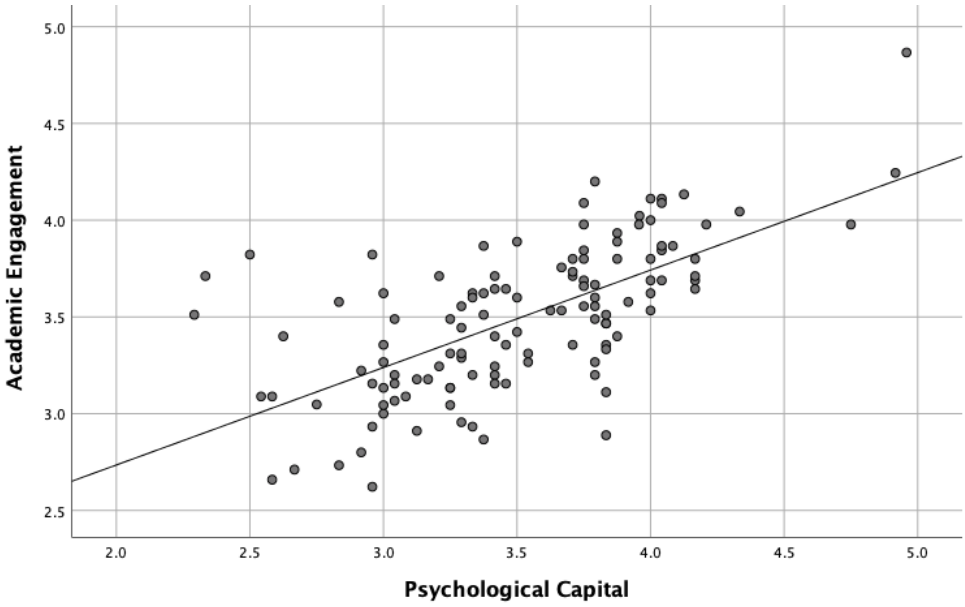


Figure P2. A scatterplot of PsyCap predicting Academic Engagement in UG students in a simple regression model (R^2= .425, n=112).

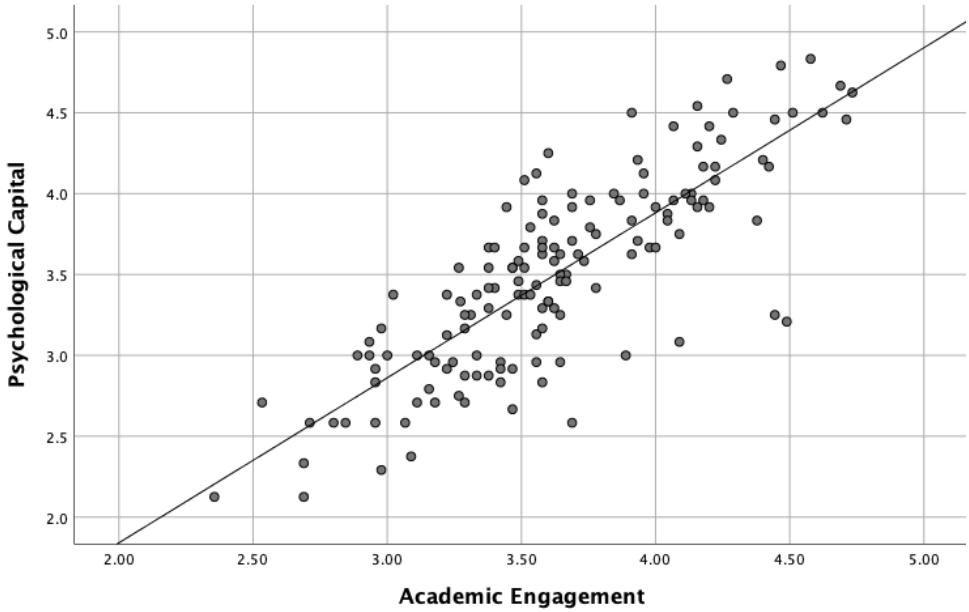


Figure P3. A scatterplot of Academic Engagement predicting PsyCap in AD students in a simple regression model (R^2= .670, n=148).

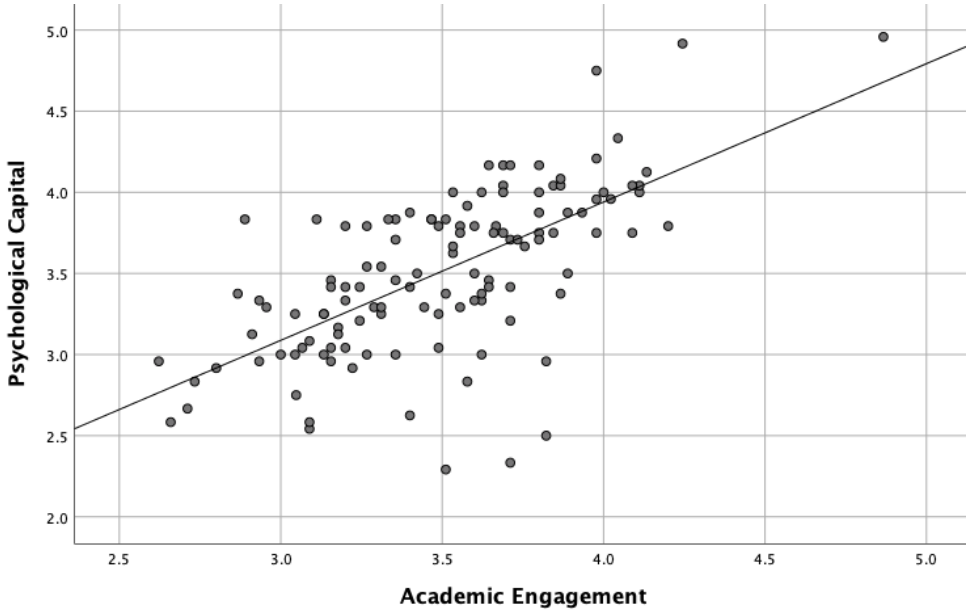


Figure P4. A scatterplot of Academic Engagement predicting PsyCap in UG students in a simple regression model (R^2= .425, n=112).

Appendix Q: Scatterplots of multiple regression models showing relationships between PsyCap and Academic Engagement in AD and UG participants

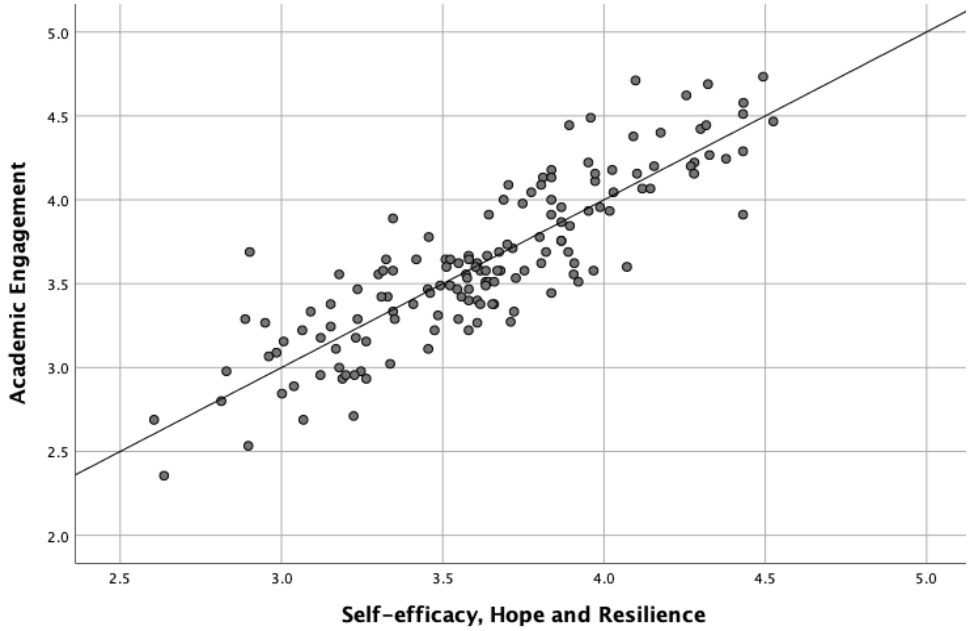


Figure Q1. A Scatterplot reflecting how Self-efficacy, Hope and Academic Resilience have predicted Academic Engagement in AD students in a multiple regression model (R^2 = .740, n = 148).

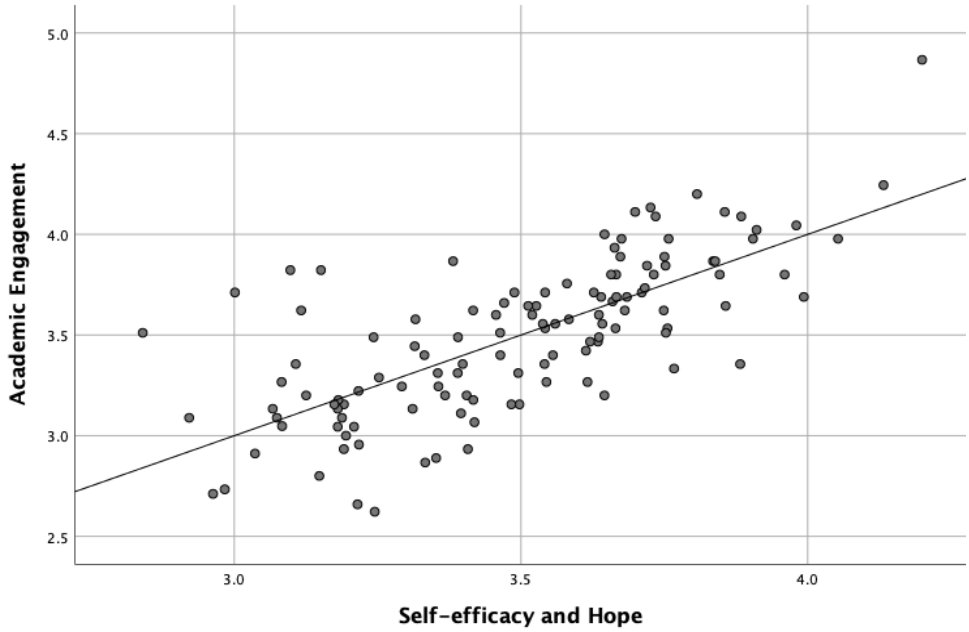


Figure Q2. A scatterplot reflecting how Self-efficacy and Hope have predicted Academic Engagement in UG students in a multiple regression model (R^2 = .513, n = 112).

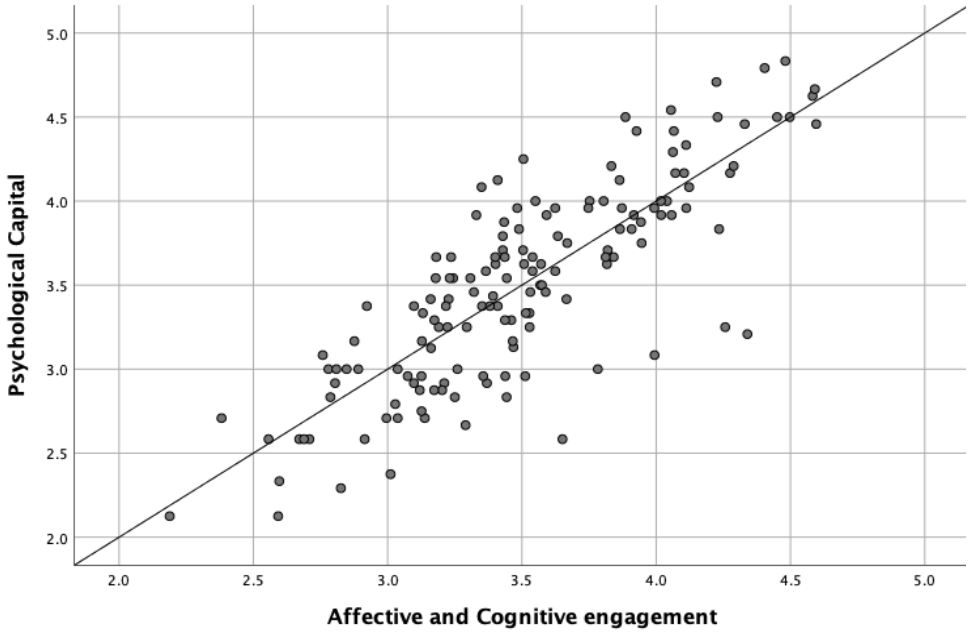


Figure Q3. A scatterplot reflecting how Affective and Cognitive Engagement have predicted PsyCap in AD students in a multiple regression model (R^2 = .667, n = 148).

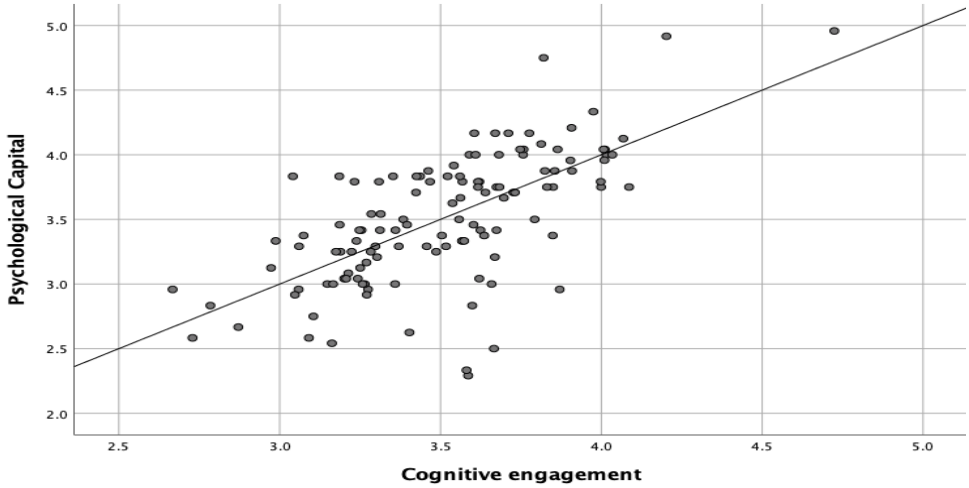


Figure Q4. A scatterplot reflecting how Cognitive Engagement has predicted PsyCap in UG students in a multiple regression model (R^2 = .420, n = 112).

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