L2 Motivations and Self-identities of Chinese Learners of English

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Abstract

This thesis investigates, in both Chinese EFL and overseas ESL contexts, students' motivations to learn English and their motivational possible selves. An exploratory sequential mixed methods design used data from semi-structured interviews and a large-scale factor-analytic survey. A retrospective case study approach was used in the interview study to investigate motivation and possible self histories of 20 English language learners enrolled as PhD students at the University of Auckland. A pilot study (*n*=10, postgraduate and undergraduate Chinese students) evaluated potential survey instruments and led to the selection of appropriate items and scales. A cross-sectional online questionnaire survey (*n*=443, postgraduate and undergraduate students enrolled in universities in New Zealand) explored the structural relations among second language (L2) regulatory styles, identity changes and L2 motivational possible selves so as to describe the development of L2 learning.

The interview study identified that there were different regulatory styles related to learning English in both domestic schooling and overseas education. Both the 'ideal L2 self' and the 'dreaded L2 self' were important sources of motivation for learning English in both ESL and EFL contexts. The survey study found that the development of three distinct selves (i.e., ideal L2 self model, ought-to L2 self model and dreaded L2 self model) involved an interaction among three different frameworks (i.e., L2 regulatory styles, identity changes and L2 selves).

This thesis delineates the dynamic and interactive process of L2 learning development, originating from regulation styles, leading to identity changes and contributing to the formation of self, with a view to helping L2 learners to develop an adaptive identity and a positive self in their L2 study. As a result of this study, it is suggested that the literature on L2 motivational possible selves should include Markus and Nurius's (1986) 'dreaded L2

self ’alongside Dörnyei’s (2005) L2 Motivational Self System, because L2 learners’ motivations and self-identities seem to be multifaceted and complex. The study results also indicate that the development of oral competence in China is not given enough attention, and this may reveal the reason for the existence of the ‘silent English’ phenomenon in China.

Acknowledgements

I would like to dedicate this thesis to my family, particularly my husband and daughter. At the same time, this thesis would not have been completed without the endless dedication of my supervisors, Professor Gavin Brown and Associate Professor Jason Stephens. I would also thank Associate Professor Richard Hamilton for supervising me while Gavin was on a sabbatical leave. I would also thank those participants participating in this study and my fellow students who support me during my PhD research journey. I also thank Maree Feren for proofreading this thesis.

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Professor Gavin Brown	Compose and revise material in the Introduction, Literature review, and Discussion; edit complete manuscript.
Associate Professor Jason Stephens	Provide quality assurance of the theoretical frameworks. Compose parts of the results section.

Certification by Co-Authors

The undersigned hereby certify that:

- the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and
- that the candidate wrote all or the majority of the text

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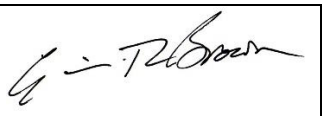
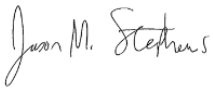
Gavin T L Brown		20 Oct 2017
Jason M Stephens		20 Oct 2017

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Chapter 1 Introduction

This thesis examines the motivations and self-identities of successful Chinese learners of English. Since I am a Chinese person and also a relatively successful Chinese learner of English, I would like to begin with an explanation of the prevalent problems among Chinese English learners. I then describe my personal experiences of learning English as an EFL teacher and a learner in the Chinese context, and as an ESL learner, who is using English as the language in which to undertake my doctoral study in an English-speaking country (i.e., New Zealand). Lastly, the guiding principles and thesis organisation are discussed.

1.1 Problems

A prevalent problem among Chinese English learners is the craze for English learning (Jiang, 2011) alongside evidence at the same time of unsatisfactory English learning proficiency. In addition, as English learners improve their English to become high English proficiency learners, some of them to some degree seem to experience potential identity changes.

1.1.1 English Learning Craze Versus Unsatisfactory English Learning Proficiency

Since 2001 (Ministry of Education China, 2001), in China's cities and towns, English learning has been a compulsory course, normally from Year 3 through secondary education to higher education. But over the past ten years in cities, many Chinese students have been learning English from the age of three or four; more and more Chinese parents have been sending their children to English training schools, before they are of school age, to learn English from native speakers. It is reported that China has 50,000 English training schools and 300 million consumers of these schools and the incomes of these training schools reach 30 billion RMB (Wang, 2013). However, despite many years of compulsory instruction and cramming school

learning, and despite the great importance of English to Chinese students' future academic careers and social success, Chinese students' English achievement is not satisfactory. As shown in Figure 1 ("Analysis of Chinese Mainland Students' Academic IELTS Scores", 2016), from 2005-2015, the mean scores (overall score) of Chinese IELTS test-takers were below 6.0 (6.0 means a competent user), varying from 5.45 to 5.80. In 2008, as reported ("Younger IELTS Test-takers in China Increased", Beijing Evening News, 2008), 74% of the Chinese IETLS test-takers were undergraduates (18-22 years of age) and 16% of them were high school students (below 18 years of age).

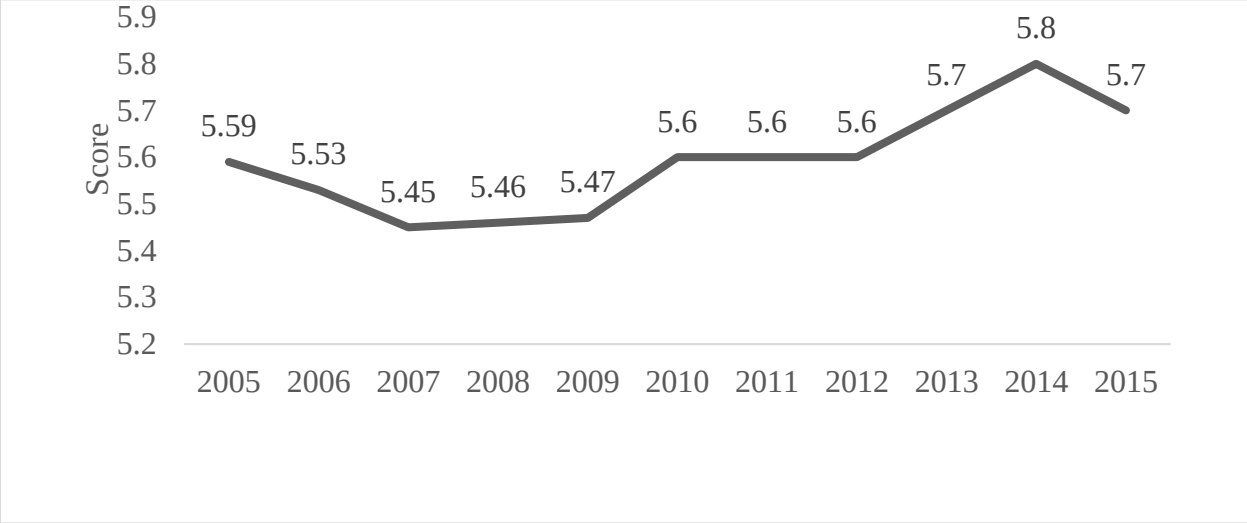

Figure 1. The trend of changes in mean scores (overall score) of Chinese Mainland students' Academic IELTS from 2005 to 2015.

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Also, according to Figure 2 ("IELTS Report", 2016), in 2015, more than half of the test-takers cannot be considered as competent English users, though some test-takers (27%) can be considered as competent English users, achieving IELTS overall scores above 6. Both figures seem to indicate that the average English proficiency of Chinese students taking the IELTS test

did not reach the competent level. By contrast, according to the IELTS website, the scores for native speakers (English as the first language) in (IETLS Performance for Test Takers 2015, retrieved from https://www.ielts.org/teaching-and-research/test-taker-performance) were 7.1 (listening), 6.7 (reading), 6.3 (writing), and 7.1 (speaking), and the overall score was 6.9.

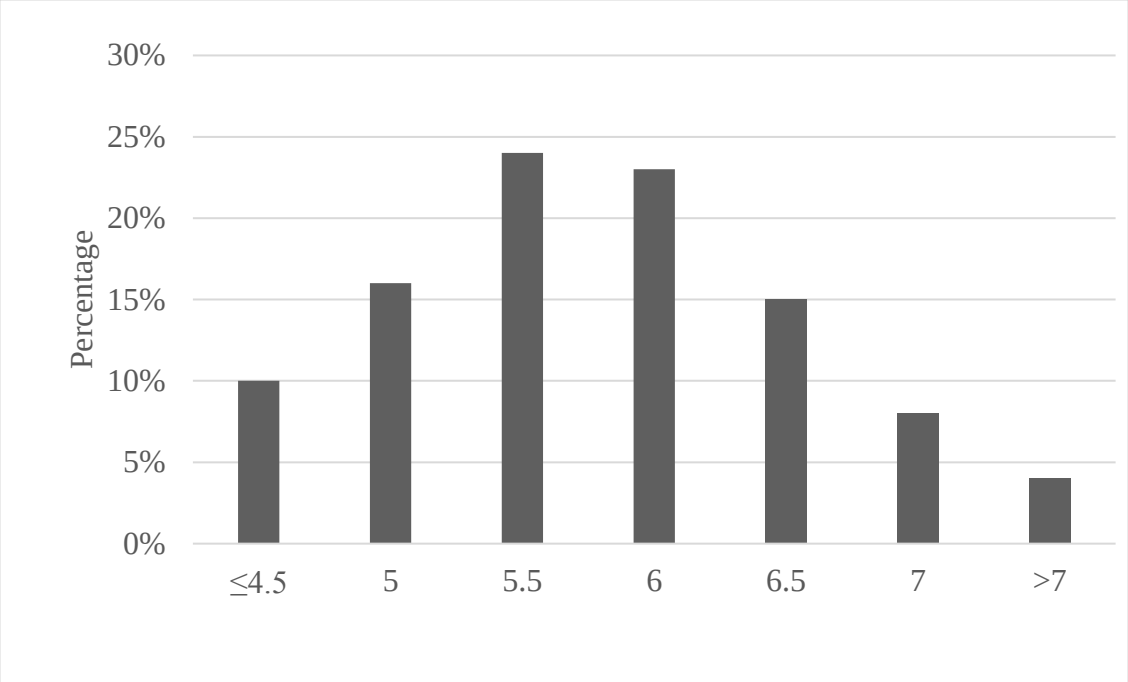

Figure 2. The percentage of different Chinese students' Academic IELTS scores in 2015.

Moreover, Chinese English learners tend to describe their English as "silent English"—that is, they are unable to or cannot fluently speak out what they have learned (Zhao, 2009, p. 154). In terms of Chinese students' English oral proficiency (academic IELTS), from 2005 to 2015, the mean scores varied from 5.18 to 5.45 ("Analysis of Chinese Mainland Students' Academic IELTS Scores", 2016), lower than their overall score, signifying that they are not competent English speakers.

Overall, these numerical values indicate that English achievement of Chinese English learners is not satisfactory relative to the years and money that Chinese English learners have

spent on learning English, although a small portion of students can be perceived as competent English users. Chinese English teachers, including my colleagues and I, have always been blamed for not improving Chinese students' English proficiency. Likewise, I think that it is my responsibility (as an English teacher) to help students to improve their English proficiency.

However, in my English class, I observed that some students were motivated to learn English, but others were demotivated. Among those motivated students, their motivation to learn English became less motivated after passing the College English Test Four (passing this test is a prerequisite for getting a good job in China). At times, demotivated students complained that English learning was a tough but unworthy process and they commented that they would not use English at all after graduation. Also, I noticed that some students achieving higher English scores at College Entrance Examination (e.g., A grade) still could not give a brief introduction of themselves in English. These cases were also common in my colleagues' English classrooms.

By contrast, I noticed that a few highly motivated students, motivated by their interest in English, have achieved higher English proficiency. For example, a non-English-major student won the first award in the National English Writing Contest and then chose to teach English writing in an English training school after her graduation. Another student, also a non-English major-student, expressed his great enthusiasm for English learning and won the first award in the National English Speaking Contest.

At the same time, I have successfully stimulated the interest of some demotivated students in learning English, and finally, they have achieved relative success in English learning. For example, a demotivated student who only achieved a lower grade in College Entrance Examination (e.g., D grade) became motivated after my frequent encouragement. She

accomplished each goal that she and I had set for her and, finally, she liked English learning and passed the College English Test Four and Six and the Postgraduate Entrance Examination, and now she has a decent job in China.

These sharp contrasts, or different cases, stimulated me to consider how students' motivation to learn English plays an important role in their language achievement and that their motivation can fluctuate and become dynamic over time. This caused me to rethink my motivation to learn English as an EFL learner and teacher.

I have been an English learner for more than 20 years and it is a long journey in which my motivation to learn English fluctuated over time. This journey started with middle school, as English was one of the compulsory courses at that time. I liked my English teacher and she liked me too, and thus I enjoyed learning English. In her English class, we learned English songs and made conversation with classmates in English, and it was full of fun. However, my English learning in high school was so boring in comparison because I was required to memorise English vocabulary and grammar rules and English texts. Although my English grade was not bad, I did not have too much interest in English learning. But I had to study English hard to meet my parents' expectations, as my parents intended to choose English as my subject when filling in the application form for College Entrance Examination and they believed that I could get a decent job if I chose English as my subject.

After entry into the university study, I regained my lost interest in English. This interest was not just in this language but in the different culture and world that this language could bring to me. I read a lot of English classical works (e.g., Jane Eyre, Pride and Prejudice, and Wuthering Heights) and began to examine the main characters' personalities, values and

experiences of love. Also, I was impressed by my native English-speaking teacher—a female white American. She was an exchange student and taught us oral English. She was nice, honest, responsible, polite and humorous. She had flexible English teaching methods, such as group discussion as well as drama and role play. She also taught us about American culture and conventions. Every week, I looked forward to her class and naïvely imaged that every Westerner would be as good as she was. I also imagined that I would become a teacher as good as she was, enabling students to enjoy learning English. Since then, I have wanted to study abroad so as to know and see Western society. In the final year of my undergraduate study, I was offered admittance to postgraduate study directly, without taking admission exams and paying fees, due to my distinguished performance (A+ student) in my previous four years study. However, I declined this offer and planned to study abroad, and my parents began to regret choosing English as my subject and blamed my longing for Western society on that choice. Unfortunately, while I was an English teacher in China, my visa application for studying in the United Kingdom was rejected.

As an English teacher, I am doing my best to improve my English proficiency and also gain more knowledge about Western cultures and cross-cultural communication so that I can help my students improve their English proficiency and avoid misunderstandings while communicating with Westerners in English. However, as my English proficiency improves, another problem arises.

1.1.2 Potential Identity Changes

As my English progressed, I began to realise that my Chinese identity and Chinese language was diminishing. I was always labelled “English teacher” when I was showing up in the university staff meeting or when the teachers from other faculties encountered me on the

university campus. I did not speak English or carry an English book, so I was confused as to how they could tell that I was an English teacher. My peer colleagues have had the same experience as this and they also experienced the same confusion. More surprisingly, one editor of a Chinese journal highlighted my poor Chinese grammar, and he commented that some sentence structures did not follow grammar rules of the Chinese language and they looked more like English sentence structures.

Additionally, my colleagues and I liked to watch American TV series and movies, enjoying attractive plots and fabulous effects and guessing what would happen at the end of each series season. This was also a common experience for good English learners in my class and my colleagues' classes. They also watched American TV series season after season and even imitated the main characters' gestures and facial expressions. At times, my family would comment that my thinking was different from theirs, and they believed that this different even weird thinking was related to my English learning. Gradually, I became aware that English learning is likely to lead to a change in identity for L2 learners, particularly for good learners.

My fear of a diminishing Chinese identity and language skills began to grow when I began with my doctoral study in New Zealand. However, this fear has begun to vanish, little by little, as I gain more access and exposure to Western society and culture. During these four years of studying overseas, I have learned how to see and examine different things and cultures critically. Therefore, I can enjoy learning good things through Chinese language and English language and Chinese culture and Western cultures and at the same time avoid the weaknesses of both languages and cultures. As a result, I can see the world more openly, with respect, and I can tolerate the differences between people from different countries and cultures.

My motivation to learn English and the possible change in my Chinese identity aroused my curiosity to find out about the motivations and identities of other Chinese students who are undertaking tertiary study in an English-speaking country (e.g., New Zealand), since they have met the English requirement of their study programmes and used English as a medium language and thus can be perceived as successful language learners.

1.2 Guiding Principles

This thesis is my attempt to address my curiosity in a systematic and methodological manner. I will firstly outline the considerations in relation to the framework and methodology that have shaped this thesis and then summarise the ultimate purpose of this thesis.

Motivation and identity are important topics in psychology; likewise, motivation in second language (L2) learning and identity in L2 learning are also important topics for linguistics researchers. These two topics are interconnected in that motivation appears to be related to the differences in language learners' linguistic outcomes and non-linguistic outcomes (e.g., self-concept and identity) as well (Gardner, 2005; Hall, 2002; Norton, 2000). Additionally, Gardner's socio-educational model (1985) is a classical motivation theory highlighting L2 learners' integrative orientation and instrumental orientation and a classical identity theory as well, stressing L2 learners' positive attitudes towards L2 and its community. Dörnyei's (2005) L2 Motivational Self System (L2MSS) conceptualises L2 motivation within a self framework, connecting the two topics. These theories seem to connect motivation and self-identity. However, the interaction of L2 learners' motivation and self-identity seems to have been overlooked, and L2 learners' potential identity change seems to have been ignored. According to Oxford's (2016) EMPATHICS model, motivation and identity, including imagination (e.g., L2MSS), are interrelated. In this thesis, therefore, I hope to contribute to the examination of this

interaction and provide a broader picture of successful L2 learners' language learning development.

Regarding the methodology for the two topics, some researchers seem to adopt a quantitative approach, putting more consideration towards statistical power than the stories of participants that exist behind the numerical values; whereas other researchers seem to adopt qualitative approaches, revealing the concerns of the individual researcher more than those of the participants involved in the study (Ryan, 2008). Although several researchers (Gao, Jia, & Zhou, 2015; Jiang, 2011; Ryan, 2008) have begun to use explanatory sequential mixed-method to investigate L2 learners' self-profile or examine Chinese English learners' identity changes over time, these studies focus on only one aspect (e.g., L2MSS or identity change) and thus the interaction of motivation and self-identity is not examined. In this thesis, an exploratory sequential mixed method is used in the hope of revealing the interaction between motivation and identity, including imagination (e.g., L2MSS) and participants' true stories, in relation to their English learning motivations and selves.

The purpose of this thesis will be meaningful and wide, far beyond satisfying my own curiosity. Ortega (2005, p. 430) commented that research "ought to be judged not only by internal criteria of methodological rigor as understood by the particular epistemological models adopted, but also ultimately on the basis of its potential for positive impact on societal and educational problems". This thesis aims to examine the interaction between L2 learners' motivation and identity, including imagination, within the field of applied linguistics and educational psychology. It also seeks to find out the potential problems of Chinese English learning and teaching and to provide some possible solutions to these problems.

In order to achieve these research aims, an exploratory sequential mixed methods design is used, including both semi-structured interviews and factor analytic surveys. Twenty Chinese PhD students at the University of Auckland were recruited to investigate their motivation and identity in relation to English learning. In addition, 443 postgraduate and undergraduate Chinese students studying in New Zealand were recruited to examine the structural relations among L2 regulatory styles (motivation), identity changes and L2 motivational possible selves.

1.3 Thesis Organisation

This thesis consists of six chapters. Chapter 1 is the introduction, introducing the prevalent problems in relation to English learning in China and the guiding principles of this thesis. Chapter 2 is the literature review which reviews two important themes: motivation and identity. The reviewing of past literature follows this logic: from the general to specific—that is, from motivation in general to motivation in L2 learning and from identity in general to identity in L2 learning. Studies in the two contexts (English as a foreign language context versus English as a second language context) for motivation in L2 learning and identity in L2 learning are then also reviewed. Subsequently, motivation and self-identity in Mainland China are reviewed. Finally, the research questions are proposed. Chapter 3 is the methodology, describing the mixed-method research design and some methodical considerations regarding sampling, interview study and survey study. The next two chapters deal with data presentation and data analysis and results: Chapter 4 presents the interview results and findings, and Chapter 5 reports the survey results and findings. Chapter 6 draws conclusion through summarising and triangulating the interview and survey results, and it also discusses the theoretical and pragmatic implications and significance of this doctoral study as well as its limitations and possibilities for future studies.

Chapter 2 Literature Review

2.1 Introduction

In order to examine English language learners' motivations and the impact of this motivation on their identity and how the motivation and identity are interacted, motivation and identity are reviewed in detail in the following sections, respectively. Firstly, motivation in general and motivation in L2 learning are reviewed. Secondly, identity in general and identity in L2 learning are reviewed, including Dörnyei's (2005) L2 motivational self system drawing on Markus and Nurius's (1986) possible selves theory. Lastly, motivation and self-identity in Mainland China are reviewed.

2.2 Motivation

This section deals with two themes: the meaning of motivation and motivation in second or foreign language learning. Firstly, it provides the definition of motivation and four important theoretical views of motivation. Subsequently, it describes two motivational theories that are prominent and relevant to this doctoral research project.

2.2.1 The Meaning of Motivation

The word *motivation* derives from the Latin word *movere*, meaning to move. To be exact, 'to move' is used to refer to the internal psychological factors that researchers use to explain behaviours; it is not physical. This meaning, 'to move', seems to give rise to a series of thought-provoking questions (e.g., why move, how to move, and where to move, etc.). Consequently, motivation is a complicated subject, encompassing various definitions and theories (Woolfolk & Margetts, 2016).

Motivation plays an integral part in sustaining students' interest and pleasure in school and study (Martin, 2003). According to Woolfolk and Margetts (2016), there are five aspects that psychologists have focused on the research on students' learning motivation: students' choices about their behaviour; their start time for beginning work (e.g., starting to write assignment immediately or tardily); their intensity of involvement in the activity; their persistence in the activity; and their thinking and feeling while engaging in the activity.

However, psychologists and researchers on motivation have not reached a consensus on the definition of motivation, nor its effect on students' learning and academic achievement or ways to promote it (Pintrich & Schunk, 2002). Thus, "there are many different definitions of motivation and much disagreement over its precise nature" (Schunk, Meece, & Pintrich, 2014, p. 4). For example, a survey of 102 statements about the definitions of motivation (Kleinginna & Kleinginna, 1981) from many sources, including 89 human behaviours and 13 animal behaviours, revealed that these definitions can be grouped into nine categories:

- two categories focused on internal mechanisms (e.g., phenomenological or physiological);
- three focused on functional process (e.g., energising or directing, or vector, referring to both energising and directing);
- two limited the scope of motivation (e.g., temporal-restrictive, referring to the short-term motivation process, or process-restrictive referring to differentiate motivation from other processes); and
- two focused on the comprehensive nature of motivation (e.g., broad/balanced, referring to the breadth of the motivational interactions, or all-inclusive, referring to considering motivation as the cause for all behaviour).

The variety of motivation definitions signifies that motivation plays an important role in examining human behaviour and animal behaviour as well. Thus, motivation is attractive to researchers from different research fields. However, given the fact that motivation lies in an imprecise discipline and thus is multifaceted (Schunk, 2000), it is not easy to give a clear and concise definition of motivation. Consequently, the lack of clear definition poses problems for its measurement and interpretation (Schunk, 2000).

2.2.1.1 Four theoretical views of motivation. According to Eggen and Kauchak (2016), there are four theoretical views of motivation: behavioural, humanist, cognitive and sociocultural. The behaviourist view considers the change in an observable behaviour as a result of experiences with the environment (Eggen & Kauchak, 2016). Clark Hull's drive reduction theory (Hull, 1943) is viewed as the first theory of motivation. According to Hull, reducing the drive is the major reason of individuals' learning and behaviour and thus this theory is one of the earliest behavioural views of motivation. Hull (1943) believes that there are primary drives (biological needs, such as hunger and thirst and sex) and secondary drives (learned drives) referring to the situations in relation to reducing the primary drives. That is, learning can be achieved through reducing the primary drives. Skinner (1953, 1965) argues that incentives and rewards can change students' behaviours and motivations. Some critics argue that the behaviourist view overlooks cognitive factors (e.g., beliefs). Other critics argue that using rewards as motivators can mislead students about the true nature of learning, since some research indicates that rewards can decrease students' interest in learning when the activity is already intrinsically motivating (Ryan & Deci, 1996). However, Cameron, Pierce, Banko and Gear (2005) suggest that praise and rewards for true achievement (e.g., students' competence is increased) can enhance intrinsic motivation. In other words, prudent use of praise and reward can be effective in increasing students' motivation (Eggen & Kauchak, 2016).

In contrast to the reductionism of behaviourists, humanists focus on the "whole person" and view motivation as people's attempt to develop their full potential and capabilities (Schunk et al., 2014). Carl Rogers and Abraham Maslow were among the earliest (and still most prominent) humanistic theorists, and both stressed that people attempt to become self-actualised (Maslow, 1968, 1970; Rogers, 1963). Maslow believed that human needs are hierarchical and

can be categorised into two major groups: deficiency needs (i.e., survival is the first need, safety is the second one, belonging is the third, and self-esteem is the fourth) and growth needs (i.e., intellectual achievement is the fifth, aesthetic achievement is the sixth, and self-actualisation is the seventh). He argued that people cannot move to a higher need unless the needs below are met and that only when deficiency needs are met can people move to growth needs. Critics argue that Maslow's hierarchical human needs might not predict people's behaviour consistently and thus there is little research to confirm these needs (Schunk et al., 2014). However, research has supported the idea that students firstly need to feel safe both physically and emotionally and then fulfil their learning potential (Perry, Turner, & Meyer, 2006).

Carl Rogers (1963) became famous for his *client-centered* therapy. He contended that life is an ongoing process whereby personal growth was to be achieved. He labelled this motivational process as the *actualising tendency* and this tendency oriented humans towards fulfilment and autonomy. According to Rogers and Freiberg (1994), although this actualising tendency is innate, experiences in the environment could foster or hinder personal growth. Further, they posit that the need for positive regard (e.g., feelings such as respect, liking, warmth, sympathy and acceptance) is essential for developing individuals' self-actualisation. Rogers' theory has been widely used in psychotherapy and education, helping both patients and students alike to overcome challenges and reach their full potential. However, some variables in this theory (e.g., positive regard) are hard to measure and the actualising process is not closely related to the specific goals, and thus this process seems to be vague (Schunk et al., 2014).

Challenging the view that change in behaviour is the result of external rewards and praise, cognitive theorists argue that motivation is determined by people's thinking (Stipek, 2002) and is instigated and regulated by plans (Miller, Galanter, & Pribram, 1960), achievement

goals (Dweck & Leggett, 1988; Locke & Latham, 2002), schemas (Ortony, Clore, & Collins, 1998), expectations (Vroom, 1964) and attributions (Weiner, 2010). People tend to be intrinsically motivated to seek information to tackle their problems (Woolfolk & Margetts, 2016). The cognitive approach emphasises that people are motivated by their intrinsic need to understand and make sense of their experiences (Eggen & Kauchak, 2016), and thus cognitive theorists believe that motivation is related to people's perception of themselves and the environment (Pintrich & Schunk, 2002).

Sociocultural theorists stress the important role of social interaction in motivation. They emphasise students' participation in classroom communities where learning is valued and where teachers and students work collaboratively to help every member to learn (Hickey & Zuiker, 2005). In other words, students learn by the company they keep (Eccles, 2009; Hickey, 2003; Rogoff, Turkanis, & Bartlett, 2001). Identity is also an important concept in the sociocultural view of motivation (Woolfolk & Margetts, 2016), as an individual is one member of the community and thus a person is given an identity within a group (e.g., teacher and soccer player). In order to maintain their identity as the community members, people are motivated to learn the values and practices of the community they belong to (Lave & Wenger, 1991; Wenger, 1998).

These four views of motivation see motivation as a dynamic element in psychology; however, they disagree on the nature of the change in motivation (Schunk, Meece, & Pintrich, 2008). Behaviourists argue that the change is the result of the external incentives and rewards, whereas cognitivists believe that the changes are due to personal thinking. Humanists consider the change as fulfilling people's full potential, but socio-cultural theorists perceive the change as an engaged participation in a community.

2.2.1.2 Motivation theories in psychology. According to Graham and Weiner (2011), contemporary motivation theories in psychology are trying to address the following seven questions that seem to navigate people's motivational sequence. Modern expectancy-value theory (Eccles, 2005; Wigfield & Cambria, 2010; Wigfield, Tonks, & Klauda, 2009) seems to answer "Do I want it?" (Graham & Weiner, 2011, pp. 372-373). Self-efficacy theory (Bandura, 1986, 1997) seems to answer "Can I do it?" (pp. 374-375). Self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2009) and achievement goals theory (Elliott & Dweck, 1988; Meece, Anderman, & Anderman, 2006) seem to answer "Why am I doing this?" (pp. 376-380). Self-regulation theory (Zimmerman & Cleary, 2009) seems to answer "How am I doing?" (p. 380). Attribution theory (Weiner, 1985, 1986) seems to answer "Why did I succeed or fail?" (p. 382). Emotions (Linnenbrink-Garcia & Pekrun, 2011) seem to answer "How do I feel?" (pp. 386-387); and impression management strategies (Hareli & Weiner, 2000; Scott & Lyman, 1968) seem to be used to answer "What do I want other people to think about me?" (pp. 387-388).

In the remainder of this section, self-determination theory and attribution theory are described in greater detail. The former theory is used to examine students' motivation and the latter theory is used to investigate the factors contributing to students' academic success or failure.

Self-determination theory. Deci and Ryan (2000) believe that human beings have an innate desire to explore and master their environment; to integrate the newly acquired knowledge into their existing cognitive structure; and to direct and regulate their behavior in accordance with their true wishes. Just as so many nutrients are needed to nourish the body, self-determination theory (Deci & Ryan, 2002) suggests that three psychological needs must be met for optimal function and growth: competence—the need to feel to be capable of fulfilling the

task effectively; autonomy—the need to have choice and control over the tasks in which we engage; and relatedness—the need for a sense of belonging and connection to others. Self-determination theory (SDT) consists of two sub-theories: cognitive evaluation theory (Deci & Ryan, 1985) and organismic integration theory (Ryan & Deci, 2000).

Cognitive evaluation theory aims to examine the factors facilitative to intrinsic motivation because intrinsic motivation contributes to people's seeking out challenges to meet their needs to be competent and autonomous (Deci & Porac, 1978). However, given the fact that people's development involves the internalisation of the social values and mores (e.g., significant others; Deci & Ryan, 1991; Ryan, Connell, & Deci, 1985), Deci and Ryan (1985; Ryan & Deci, 2000) recognise that not all behavior is intrinsically motivated and some part of the extrinsic motivations could be internalised and should be part of the self-regulation process. As a result, they developed organismic integration theory (OIT), aiming to specify the different forms of extrinsic motivation and how initially externally regulated behaviour might become internally regulated.

Organismic integration theory (Ryan & Deci, 2000) posits the existence of three states or types of motivation: amotivation, extrinsic motivation and intrinsic motivation. Amotivation (literally, "without motivation") is characterised by low levels of perceived competence and/or value in completing the task and the locus of causality (i.e., the location of the cause) is impersonal. Extrinsic motivation is characterised by engaging in an activity due to external rewards, whereas intrinsic motivation is characterised by involvement in an activity for one's own sake (Schunk et al., 2014).

In order to clarify the extent to which extrinsic motivation is under the control of the individual or under the control of other people or other social situations, extrinsic motivation is described as four separate types (Ryan & Deci, 2000): external regulation (e.g., external demand or reward), introjected regulation (e.g., protecting self-esteem), identified regulation (e.g., being satisfied with the value of the target action) and integrated regulation (e.g., closely related to personally selected goals). As they have suggested, external regulation is experiencing the form of outside control and thus their locus of causality is external, and introjected regulation is somewhat external, because the performance of the activity is based on one's desire to maintain one's self-esteem by living up to external standards and meeting significant others' expectations. These two regulations can be labelled as controlled regulatory style (i.e., enacting the activity due to the external pressure; Deci & Ryan, 2000).

By contrast, identified regulation refers to one's identification with the activity and the value accompanying the activity, and thus the locus of causality is somewhat internal. Integrated regulation, the most internalised in the category of extrinsic motivation, shows that individuals engage in activity congruent with their needs and values and thus the locus of causality is internal. Likewise, intrinsic motivation is internal, as people are engaging in the activity for their own interest and enjoyment. Identified regulation, integrated regulation and intrinsic motivation can be labelled as autonomous regulatory style (i.e., enacting the activity because of one's own choice and volition; Deci & Ryan, 2000).

Self-determination theory has many important implications in educational practice, from the start of school to university (Jang, Reeve, & Deci, 2010; Moller, Deci, & Ryan, 2006; Shih, 2008). It was found that giving more choices to students increased their intrinsic motivation and improved academic performance (Patall, Cooper, & Allen, 2010). Although external

reinforcement seems likely to create extrinsic motivation rather than intrinsic, it is possible for external incentives to support intrinsic motivation instead of being an external controlling force. For example, external information (e.g., teacher's informational feedback and reinforcement; Ormrod, 2011) can be helpful in creating an intrinsically motivated and friendly classroom.

Attribution theory. Attribution theory is a cognitive theory (Eggen & Kauchak, 2016; Woolfolk & Margetts, 2016) which tries to systematically describe students' perceptions about the reasons for their success and failure and how these perceptions will impact their motivations to learn. In order words, this theory begins with the assumption that learners are trying to make sense of their behaviour and environment. (Weiner, 1992; White, 1959).

Weiner (1986, 1992) found that the research on students' attribution for their academic performance seems to focus on four key reasons for success or failure: ability, effort, task difficulty and luck. Weiner (1992, 2000) then proposed that the variety of these attributions tends to be classified into three causal dimensions: stability, locus and control. Stability refers to whether the perceived cause for success or failure is possible or impossible to change in the near future. Locus refers to whether the perceived cause is within or outside of the student. Control refers to whether the student has the control or no control over the perceived cause.

Attribution theory also describes how students' explanations of their success or failure impact their motivation (Anderman & Anderman, 2014). If students attribute their success to internal factors (e.g., ability), they would be proud of themselves and their motivation would be increased. By contrast, if they attribute their failure to internal factors, their self-esteem would diminish and motivation would be decreased (Woolfolk & Margetts, 2016). The biggest motivational problem will arise when students attribute failures to the stable and uncontrollable

factors (e.g., ability), which tends to result in repeated failures and unmotivated learning behaviour (Weiner, 2000, 2010). These hypotheses have been confirmed, as many studies have found that students' academic achievement is positively related to the attribution to unstable, internal and controllable factors but negatively associated with stable, external and uncontrollable factors (Georgious, 1999; Powers & Wagner, 1984; Stevenson et al., 1990). These results suggest that a positive attribution plays an important role in students' learning motivation and academic achievement. In addition, researchers have found cultural differences (Phillipson, 2006; Stevenson et al., 1990) in the patterns of attribution theory. This signifies that attribution theory is malleable and related to cultural context and thus cultural context should be taken into account in shaping the patterns of attribution theory.

Weiner's (1992, 2000) locus dimension bears much resemblance to Ryan and Deci's (2000) locus of causality in self-determination theory. Both stress the location of *something*, within or outside the person. The difference is that in the locus dimension of attribution theory, *something* refers to the perceived cause for success or failure but in the locus of causality of self-determination, *something* refers to the reasons for enacting an activity. Further, attribution theory views the explanations of the past success or failure as an important indicator of future behaviour, and self-determination theory views the motivation as a reason to enact an activity.

2.2.2 Motivation in L2 Learning

Motivation plays an important role in L2 learning because it helps learners sustain effort (Dörnyei, Csizér, & Németh, 2006), enhances their success in English learning (Gardner, 2001), and promotes the autonomy of language learners (Spratt, Humphreys, & Chan, 2002). This section, therefore, contains a review of the motivational theories in L2 learning. It starts with a review of the Gardner socio-educational model and the empirical studies that use this model and

is followed by a review of the self-determination theory and also the empirical studies that use this theory.

2.2.2.1 Gardner's socio-educational model. Since 1960, some researchers have shown interest in second language motivation. Gardner's socio-educational model (Gardner, 1985) contends that the attitudes that L2 learners have towards the specific L2 community impact their L2 language achievement.

This model (1985) shows motivation as being composed of three components: the desire to learn the L2, motivational intensity, and attitudes towards learning this L2. It also shows integrativeness (i.e., interest in learning this second language so as to come close to the L2 communities) and attitudes towards the learning situation (e.g., English teachers, teaching curriculum and teaching plans) as the two antecedents of motivation, and that these two antecedents influence motivation and thus English achievement. According to Gardner (1985), learners with integrative orientation learn a second language to get closer to that language community, whereas learners with instrumental orientation learn a second language for pragmatic reasons (e.g., good job). Gardner assumed that the former learners would perform better than the latter learners in linguistic (e.g., test scores) and non-linguistic outcomes (e.g., anxiety and confidence). However, his socio-educational model did not include integrative and instrumental orientations, and Dörnyei (2000) viewed these orientations as "triggers" (p. 426) of motivation.

Gardner's socio-educational model (1985) has been extensively researched and widely used in L2 motivation (e.g., Gardner, 1985, 2001, 2005; Gardner, Masgoret, & Mihic, 2004; Gardner, Masgoret, & Tremblay, 1999). For example, a meta-analysis of 75 independent studies

(Masgoret & Gardner, 2003), including 21 samples of participants in an ESL context and 54 samples of participants in an EFL context, with 10,489 participants, examined the relationship between second language achievement and five variables in Gardner's socio-educational model (motivation, attitudes towards the learning situation, integrativeness, integrative orientation and instrumental orientation). The Attitude/Motivation Test Battery and various measurements, such as grades, objectives tests and self-ratings of language proficiency, were utilised in these 75 independent studies. The meta-analysis found that motivation (desire to learn the L2, motivational intensity and attitudes towards learning this L2) was the strongest correlate of the five factors with achievement, with the mean correlation between motivation and grades, objectives tests and self-ratings of language proficiency being r=.37, r=.29, and r=.39, respectively. By contrast, instrumental orientation was the weakest correlate of the five factors with achievement, with the mean correlation between instrumental orientation and grades, objective tests and self-ratings of language proficiency being r=.16, r=.08, and r=.16, respectively.

Also, the meta-analysis found that in both second and foreign language contexts that integrative orientation was more related to achievement than instrumental orientation. It seemed that this socio-educational model was valid across different language learning contexts. Nonetheless, some researchers (e.g., Dörnyei, 1990; Oxford, 1996) argued that integrative orientation was less relevant in a foreign language context. For example, Yashima (2000) reported that instrumental orientation was the most important for Japanese university students while the integrative orientation was not important for them. Lamb (2004) found no integrativeness motivation for Indonesian English learners. Chen, Warden and Chang (2005) found that integrative orientation contributed to more English learning effort for Chinese English

learners, whereas there was no integrative motivation for English learners in Taiwan (Warden & Lin, 2000).

There is, therefore, concern about the generalisability of the socio-educational model across different language learning contexts (e.g., second language learning context compared with foreign language learning context). This model contains a lot of terminologies, such as motivation, integrativeness, integrative orientation and instrumental orientation, and these different terminologies give rise to confusion (Dörnyei, 1990). In addition, this model has been widely oversimplified as integrative and instrumental motivation (Dörnyei, 2001b), whereas this dichotomy is not sufficient to include the newly identified motivations, such as pride-reward (Irie, 2003), requirement (Jiang, 2011; Warden & Lin, 2000) and social responsibility (Gao, Zhao, Cheng, & Zhou, 2003).

Yet, Gardner (2001, 2005) defended that socio-educational model, stating it is not restricted to the integrative and instrumental dichotomy, and he argued that the newly found motivations (e.g., pride-reward, requirement and social responsibility) are the reasons for doing something, not the real "motivation". In 2005, Gardner revised the socio-educational (SE) model, proposing that motivation and language aptitude influence language achievement. His model is shown in Figure 3 (Gardner, 2005, p. 6).

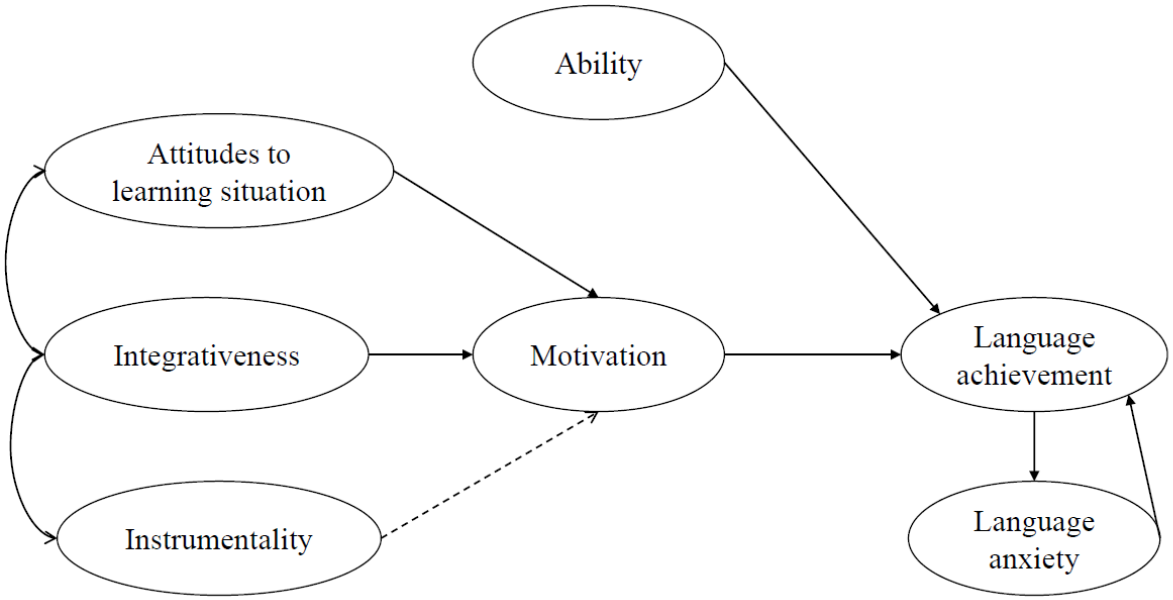

Figure 3. Gardner's revised socio-educational model (2005).

In this revised socio-educational model (Gardner, 2005), motivation is viewed as the driving force in any situation. Further, Gardner argued that integrativeness (e.g., intrinsic interest in foreign languages) and attitudes towards the learning situation (e.g., language teacher and language class) are two closely related variables that influence motivation to study a foreign/second language. He suggested that instrumentality (e.g., learning the target language for pragmatic reasons) might be indirectly related to language achievement, mediated through motivation. Also, he suggested that the role that anxiety plays in language learning should be complex. That is, a certain amount of anxiety would be facilitating to language achievement, whereas high levels would be debilitating to achievement.

Gardner's socio-educational model has contributed to the understanding of second/foreign language learning behaviour. MacIntyre (2004) believes that this model is unique in that motivation is integrated with social, cognitive and affective factors. He and his colleagues (MacIntyre, Mackinnon, & Clément, 2009) praise the statistical analysis (e.g., correlation,

regression and path analysis) used in this model, as compared with the simple description of data, statistical analysis gives insights into a deeper understanding of language learning motivation. In addition, Gardner and his colleagues developed the Attitude Motivation Test Battery (AMTB), and this AMTB has been helpful in the cross-validation of the socio-educational model in different learning contexts (Jiang, 2011). That is, this AMTB was used in the comparison of research findings from different language learning contexts, giving insight into the role that learning context can play in the language learning motivation.

However, in the era of globalisation, English is viewed as the lingua franca and people from different ethnic groups will communicate with others in English. Thus, in the socio-educational model, the concept of identifying with a specific L2 community (e.g. British or American) and its culture does not make too much sense (Yashima, 2009; Yashima & Zenuk-Nishide, 2008). In terms of the methodology, this model relies heavily on snapshot self-report surveys. That makes it impossible to delineate the dynamic process of language learning motivation. In other words, it cannot describe a complete and accurate picture of this learning situation (Crooks & Schmidt, 1991; Ormrod, 2011; Pavlenko, 2002; Ushioda, 2001). This model seems to overlook the role that the identity of English learners can play in motivation (Agnihotri & Khanna, 1997; Coetzee-Van rooy, 2006; Norton, 2000).

2.2.2.2 Self-determination in L2 learning. Since 1990, self-determination theory has been used to examine language learners' motivation because researchers believed that this theory could offer a deeper understanding of language learners' motivation **(**Noels, Pelletier, Clément, & Vallerand, 2000). Also, self-determination can provide more flexibility and allow for the possibility of changes in learning orientation (Dörnyei, 1998).

Noels and her colleagues (Noels et al., 2000) conducted a study on Canadian French language learners to examine their French learning orientations from the perspective of SDT. Reliability analysis and exploratory factor analysis were used to test the reliability and validity of the instrument that the researchers had developed to assess the subtypes of extrinsic motivation and intrinsic motivation. They used correlation analysis to explore the correlations between these motivation subtypes (e.g., external regulation) and learners' orientations to language learning including instrumental orientation, knowledge (e.g., to become a more knowledgeable person), travel (e.g., to travel to the target language country) and friendship (e.g., to make friends with the speakers of the target language). The findings clearly demonstrated that instrumental orientation and external regulation were strongly related and that these orientations (e.g., travel, friendship and knowledge) were highly interrelated with identified regulation and intrinsic motivation. According to Noels and her colleagues (2001), it is hard to differentiate integrated regulation from identified regulation because "factor analysis on experimental forms of the EME (Echelle de Motivation en Education) revealed that integrated regulation did not distinguish itself from identified regulation" (Vallerand et al., 1992, p. 1006).

Another study (Pae, 2008) using self-determination theory on the Korean (i.e., The Republics of Korea) English language learners reported that (1) instrumental motivation was similar to external regulation, (2) instrumental motivation was different from introjected,

identified and intrinsic motivation, and (3) integrative motivation was different from intrinsic motivation. A chi-square invariance test was used to confirm the statistical similarity between instrumental motivation and external regulation. However, integrative motivation and intrinsic motivation were not found to be statistically similar. A structural equation model revealed that intrinsic motivation was the most important orientation linking to L2 achievement and that self-confidence and motivation (having the same meaning in Gardner's model) mediated the contribution of intrinsic motivation to L2 achievement.

2.2.3 Summary

Compared with the four historical views of motivation (i.e., behavioural, humanistic, cognitive and sociocultural views), contemporary theories of motivation suggest that motivation should involve cognitions (e.g., beliefs and goals) and behaviours and affects (Schunk et al., 2014) and that learners can construct motivational beliefs (Turner & Patrick, 2008). In this thesis, motivation is defined as "the process whereby goal-directed activities are instigated and sustained" (Schunk et al., 2014, p. 5). They believe that motivation is a process, not a product: it involves goals that can provide the impetus and direction for the activity, and it requires physical or mental activities and these activities are instigated and can be sustained. Thus, motivation is an important factor in students' academic achievement.

Motivation can change over time (Wigfield, Guthrie, Tonks, & Perencevich, 2004), and, in particular, it changes as students develop from children into adults (Wigfield & Eccles, 2002). Motivation is firmly related to the context (Buehl & Alexander, 2005) and Eccles and Wigfield (2002) contend that motivation researchers should clarify the context in which a motivational model can work best.

Overall, motivation is viewed as a complex but dynamic process involving personal, social and contextual variables (Turner & Patrick, 2008). Thus, motivation in second/foreign language learning is also dynamic and complex and related to the specific language learning context (e.g., second language context compared with foreign language context) and culture context (e.g., Asian culture context compared with Western culture context). Given the dynamic and changing characteristics of motivation, the research method in motivation in language learning should be diverse. That is, in addition to a quantitative method (e.g., survey) that is traditionally and widely used, more and more qualitative and mixed methods are expected to be used in the future.

2.3 Identity

This section reviews two themes: identity in general and identity in second or foreign language learning. The conceptualisation of identity and two important approaches to identity are firstly reviewed, followed by identity in L2 learning. Finally, identity research in English as a second language context and as a foreign language context are reviewed.

2.3.1 Identity

According to Brubaker and Cooper (2000), identity involves a lot of work and it is used to stress the non-instrumental behaviour and to capture the key and basic aspects of selfhood and to highlight the fragmental quality of the current experience of self, a self being unstable and activated across different contexts. Accordingly, identity is multifaceted and complex (Schwartz, Lyuckx, & Vignoles, 2011) and has generated much interest from many disciplines, such as psychology, sociology and applied linguistics. Thus, there are a lot of definitions of identity and different approaches to identity.

2.3.1.1 Conceptualisations of identity. Contemporary psychologists adopt James' (1890) definition of identity. James believed that self/identity includes psychological content (e.g., beliefs and goal) and psychological processes (e.g., self-appraisal) and a representational self system that originates from people's unique history of social experience in local and social and physical worlds, constructed in the personal project of self-development. However, social scientists adopt Mead's (1934) definition of identity. Mead argued that self/identity is located in a social and cultural structure (e.g., a person's social status) where people develop multiple identities through participation in shared activities and that self/identity is an interpersonal process in which people receive social appraisals from others. In addition, Waterman (2011) views identity as a self-discovery, and Gregg, Sedikides and Gebauer (2011) describe identity as a dynamic process which involves self-improvement and self-appraisal. By contrast, Heppner and Kernis (2011) stress that identity is related to self-esteem.

2.3.1.2 Two approaches to identity. Generally, there are two important approaches to identity: structuralism and post-structuralism (Norton, 2000). Structuralists believe that social and material structures can determine every social phenomenon (Block, 2006). Post-structuralists contend that the world is subtle, multileveled and complicated (Block, 2007) and thus identity is not fixed but fragmented and destabilised and contestable in nature.

Structuralists are interested in searching for the established principles and laws that can be used to decide, govern and structure human activities (Block, 2006). Structuralism seems to involve two main branches: biological and social determinism (Bucholtz, 2003). The former branch stresses the role of genes in human behaviour, whereas the latter branch emphasises the influence of the social structures on people's behaviour. From the perspective of structuralism, identity is described as "the position that the attributes and behaviour of socially defined groups

can be determined and explained by reference to cultural and/or biological characteristics believed to be inherent to the group" (Bucholtz, 2003, p. 400). Further, Bucholtz points out that this definition is based on two prerequisites: the group or community can be clearly demarcated and to some extent the group or community members are alike. According to structuralists, identity is seen as static and predetermined and inherent, seeming to relate to people's biological characteristics (e.g., skin colour) and social and cultural structures (e.g., the language that people speak). Thus, for structuralists, there is little confusion and dilemma about identity, as identity is "a matter of being" (Kawai, 2004, p. 40).

Since the 1990s, however, approaches to identity have shifted from structuralism to post-structuralism. According to post-structuralism, people have multiple and contradictory identities and, therefore, identity is seen as a site of struggle (Norton, 2000). Moreover, people's identities are closely related to social contexts (Oxford, 2016) and they are subjected to change over time and space. Structuralists believe that human beings have no power over their self-identification. Compared with structuralism, post-structuralism maintains that people are the actors who can create and recreate their selfhood. In other words, identity is "a matter of becoming", with autonomy and agency (Kawai, 2004, p. 41).

To summarise, structuralists believe that identity is static and unitary and that people have no control over their identity. However, post-structuralists contend that identity is dynamic and multifaceted, linked to social contexts, and that people have power over the creation of their identity. It is worth noting that although people have choices and subjectivity in the process of self/identity creation, these choices are not completely a result of their wishes and they are more or less determined by social and culture structures. That is, identity is a complex subject involving people's subjectivity (e.g., self-conscious choices) and social restraints.

2.3.2. Identity in Language Learning

Language and identity are intricately related to each other (McKay, 2010; Norton, 2010) and they have constituted an indispensable part in the research of bilingualism and second language acquisition (Hall, 2002; Norton, 2000; Schumann, 1978). Generally speaking, study on language learners' identity began in the late of 1960s and thrived in the 1970s but experienced a big change in the 1990s. Before the 1990s, the study of language learners' identity was focused on learning English as a second language in an ESL context (e.g., Canada and the United States). The classical theories of this period were Lambert's (1974, p. 25) "subtractive bilingualism" and "additive bilingualism", Gardner's socio-educational model (1985, 2001, 2005) (see section 2.2.2.1) and Schumann's acculturation model (1978). These classical theories seem to approach the identity issue from a psychological perspective, focusing on a relatively stable characteristic of each learner (e.g., attitude towards the target language, language learning motivation and language learning proficiency; Gao, Jia, & Zhou, 2015). However, since the 1990s, researchers have begun to approach the identity issue from a sociolinguistic perspective, stressing the interaction between language learners' identity and the social context (e.g., social relation and language learning context). These theories and the classical theories from a psychological perspective are discussed in Section 2.3.2.1. At the same time, researchers have begun to study identity issues in English as a foreign language in the EFL context (e.g., China and Japan). These studies are discussed in Section 2.3.2.2.

2.3.2.1 Identity issues in the ESL context. Lambert (1967) conducted a study on French-Americans, an ethnic minority group in New England, to evaluate the French-American adolescents' allegiances to both their French and American languages and cultures. Four attitude scales were employed. The California F scale was used to measure the attitude of suspicion-acceptance of the foreign people. An Anomie scale was used to measure social dissatisfaction or group alienation. A Francophilia scale was used to measure one's attitude to French people and culture, compared with one's own culture and people. Orientation index used to measure the subjects' reasons for learning L2. Language proficiency in both languages was used as an index for measuring their adjustment to the identity conflict they were facing.

This study revealed that there were four subgroups showing different patterns in their language proficiency and that the allegiance of every group was consistent with each pattern. The first subgroup, preferring American to the French culture and being adept in English, showed a clear rejection of their French heritage, whereas the second subgroup, who were more proficient in French than English, displayed a strong desire to be French. The third subgroup, who were attracted to certain characteristics of both French culture and American culture, appeared confronted with the crisis of cultural allegiance. However, the final subgroup, open-minded to both cultures and languages, profited from this experience of language learning and were proficient in both languages.

Lambert then proposed "subtractive bilingualism" and "additive bilingualism" (1974, p. 25). According to Lambert, additive bilingualism means that learning the second language could not replace the first language of the learner, and consequently the second language learners were unlikely to fear losing their identity, whereas subtractive bilingualism refers to the phenomenon that learners' first language is subtracted out for the second language, with fear of losing identity.

He subsequently commented that language learning has a profound impact on learners' identity:

> The more proficient one becomes in a second language the more he may find that his place in his original membership group is modified at the same time as the other linguistic-cultural group becomes something more than a reference group for him. It may, in fact, become a second membership group for him. Depending upon the compatibility of the two cultures, he may experience feelings of chagrin or regret as he loses ties in one group, mixed with the fearful anticipation of entering a relatively new group. (Lambert, 2003, p. 314)

According to Lambert (2003), the negative feeling that the learners have regarding second language learning may be due to losing ties to their ethnic group and thus language learners could fear being assimilated to the new group. However, Block (2007) comments that Lambert's (1967) study overly relies on a snapshot questionnaire to obtain data, and thus he suggests that future studies should operationalise the questionnaire-based attitude scales through interviews. Also, he argues that the concept of identity in Lambert's research, which is relating to the construct of "attitudes", is different from the social scientists' definition of identity, who view identity as "socially constructed, self-conscious, ongoing narratives that individuals perform, interpret, and project in dress, bodily movements, actions, and language" (Block, 2007, p. 27).

Gardner's socio-educational model (1985, 2001), which has been discussed in detail in Section 2.2.2.1, is another classical theory in studying identity issues, focusing on second language learners' attitude towards the target language community. According to Gardner, if a

L2 learner has a positive attitude towards the target language and its community, willing to integrate into the target language community, this learner is likely to achieve success in this target language learning. His model highlights the role of motivation in second language learning and the role of social factors in the process of language learning. However, integrativeness, one of core concepts of this model, referring to "a genuine interest in learning the second language in order to come closer to the other language communities" (Gardner, 2001, p. 5), seems to be irrelevant in some learning contexts, particularly in the English as a foreign language context (e.g., China and Indonesian and Japan; see section 2.2.2.1).

Similar to Gardner's socio-educational model, Schumann's acculturation theory (1978) focuses on language learners' attitudes towards the target language and its community. He believes that "second language acquisition is just one aspect of acculturation and the degree to which a learner acculturates to the target language will control the degree to which he acquires second language acquisition". In addition to acculturation, this theory (Schumann, 1976, p. 396) consists of another two important terms: social distance and psychological distance.

Social distance (Schumann, 1976, p. 397) refers to the relationship between the L2 learning group and the target language community, dealing with the following sociological factors: dominant social status (e.g., L2 learning group is politically, culturally, technically and economically superior to the target language) versus subordinate social status (e.g., L2 learning group is politically, culturally, technically and economically inferior to the target language); assimilation (e.g., L2 learning group abandons its own cultures and values and adopts target language cultures and values) versus acculturation (e.g., L2 learning group adopts target language cultures and values while keeping its own cultures and values) and also preservation (e.g., L2 learning group keeps their own cultures and values and rejects target language cultures

and values); enclosure (e.g., the extent to which the two groups have separate schools, churches, clubs, etc.); cohesiveness (e.g., the extent to which members of the L2 learning group live, work, and socialise together); size (e.g., the size of the L2 learning group), congruence (e.g., cultures of the two groups are congruent with each other), attitude (e.g., ethnic stereotypes by which the two groups either positively or negatively value each other), and intended length of residence (e.g., how long the L2 learning group intends to stay in the target language area). Schumann believes that social distance plays an important role in L2 learners' use of the target language and acculturation to the target language community.

Psychological distance, another term that accounts for the success or failure in L2 learning (Schumann, 1976), views the L2 learners as individuals, dealing with the relationship between the L2 learner and the target language community. It involves the following psychological factors (p. 401): the resolution of language shock and culture shock, motivation (e.g., Gardner's integrative orientation and instrumental orientation), and ego permeability (e.g., L2 learners are more able to tune into another culture if one is less rigid about one's own). Schumann summarises that L2 learners with a positive attitude towards the target language and its community will achieve success in this target language learning.

Schumann's acculturation theory (1978) stresses the role of social and psychological factors in second language learning success (Mitchell & Myles, 2004), providing a new understanding of how the relationship between the L2 learners group and the target language group and other social factors could influence L2 success. However, this theory seems to overly emphasise L2 learners' attitudes towards the target language and community, and at the same time it ignores another important facet: how the members of the target language community view these L2 learners (Norton, 2000). In other words, this theory overlooks the reciprocal

relationship between L2 learners and the target language community. In addition, Norton (2000) argues that this acculturation theory is misleading because it maintains that second language proficiency will be achieved if L2 learners have a positive attitude and a desire to acculturate to the target language community. She conducted a long-term survey on female immigrants to Canada and found that a positive attitude towards Canadians and a strong desire to integrate into the local Canadian community had not increased these L2 learners' English achievement.

To sum up, these classical theories, particularly Gardner's socio-educational model and Schumann's acculturation model, seem to focus on the change in L2 learners' membership from the members of the L2 learning group to the members of the target language group while learning a second language. Therefore, language is viewed as a stable property of a particular group and a marker to distinguish insiders (English native speakers) from outsiders (non-English native speakers), and, consequently, identity is seen as a group attribute (Ricento, 2005).

However, since the 1990s, with the rise of globalisation, English has been viewed as a language belonging to English native speakers and to the world as well (Lo Bianco, 2005), and the research on identity issues has changed from the previous psychological approach (e.g., Gardner's socio-educational model and Schumann's acculturation model) to the sociolinguistic approach, highlighting the connection between L2 learning and identity development. In other words, L2 learning should be situated in a social context, including social power relations and identity (re)construction, and at the same time, social power relations and identity are likely to change the nature and path of L2 learning (Norton, 2000).

To be specific, borrowing from Bourdieu's notion of "investment" (1977, p. 656), Norton (1997, p. 411) developed the concept of "investment" in L2 learning, referring to "socially and

historically constructed relationship of learners to the target language and sometimes ambivalent desire to learn and practice it". She then proposed that during the process of investment construction L2 learners are conceived as having a complex history and multiple desires and that an investment in L2 learning is also an investment in a learner's social identity. According to Norton (2000), this investment in L2 learning can help L2 learners to gain more access to the social resources and other material resources so that they will get a deeper understanding of their identity and their social position.

Norton's investment concept seems to be similar to the instrumentality in Gardner's revised socio-educational model (2005) (see Figure 3), as both concepts describe a situation in which an individual learns a L2 language in order to gain more access to the resources belonging to the target language community or for pragmatic reasons. However, Norton argued that these two concepts are different. Gardner's instrumentality views L2 learners as static and independent of social power relations. By contrast, Norton's investment conceives L2 learners as dynamic, depending on the social power relations around them and having human agency. That is, L2 learners are viewed as both the subject of and subject to the relations of power within a particular site and community (Norton, 1997).

Subsequently, borrowing from Anderson's (1991) concept of the imagined community, Kanno and Norton (2003, p. 241) redefine this concept as "groups of people not immediately tangible and accessible, with whom we connect through the power of the imagination". In other words, unlike tangible communities, these imagined communities are created by imagination (Pavlenko & Blackledge, 2004), and L2 learners link to the imagined communities through imagination. In this way, L2 learners' effort in learning this language (e.g., motivation) is closely linked to these imagined communities and thus these imagined identities can be defined as

possible selves (Ryan & Irie, 2014). Thus, Dörnyei's L2 motivational system (2005) drawing on Markus and Nurius's possible selves theory (1986) is reviewed separately in section 2.3.2.3.

2.3.2.2 Identity issues in the EFL context. Studies previously reviewed were conducted in an English as a second language context (e.g., The United States and Canada), in which learners are exposed to the target language and culture considerably. However, since the 1990s, some researchers (e.g., Gao and her colleagues in China and Ryan in Japan) have begun to approach the identity issues in an EFL context where the use of the target language is not prevalent in society (e.g., English is a foreign language in China), though several researchers (e.g., Qu, a Chinese linguist, 2005) are doubtful about the role of foreign language learning in the process of self-identity change in an EFL context.

Firstly, in order to explore foreign language learners' English learning identity, Gao (1994) interviewed 52 adults, who were regarded as most proficient in English learning (i.e., mainly professors, researchers and translators). This interview study identified that these proficient English learners had productiveness in English learning and that this productiveness is reflected on four levels: a linguistic level, a cognitive level, an affective level and an aesthetic level. Then, building on this interview study finding, Gao (1994) proposed "productive bilingualism" (p. 59), which refers to the phenomenon that being skilled in both the target language and native language could positively reinforce each other. Productive bilingualism can be seen to complement Lambert's (1974, p. 25) "subtractive bilingualism" and "additive bilingualism". However, it is unknown whether this productive bilingualism can be generalised to the common language learners.

In order to address this question, Gao and her colleagues (Gao, Cheng, Zhao, & Zhou, 2005) carried out a national survey involving 2278 undergraduates at 30 universities from 29 provinces of China. Firstly, they developed a questionnaire consisting of six categories of self-identity change in relation to English learning in an English as a foreign language context (i.e., Chinese EFL context), based on the existing literature (e.g., Lambert's additive bilingualism and subtractive bilingualism and Gao's productive bilingualism) and students' responses to the open-ended question "What drives you to learn English?", in four universities across different provinces. Specifically, these six categories of self-identity change were: 1) self-confidence change, which means the change in one's perception of his/her language competence; 2) additive change, which refers to the coexistence of the two sets of languages and values; 3) subtractive change, which emphasises the replacement of the native language by the second language; 4) split change, which discusses the identity crisis resulting from the struggle between the two languages and cultures; 5) productive change, which focuses on the positive reinforcement of the two languages due to learners' proficiency in both languages; and 6) zero change, which is described as no change in learners' self-identity.

Gao and her colleagues (Gao et al., 2005) then administered this questionnaire to the 2278 students to test the reliability of the questionnaire (Cronbach's a=.65). However, it is noteworthy that they do not provide the Cronbach's alpha for every subscale of this questionnaire (e.g., productive identity change) and the validity of this questionnaire. This study also investigated these students' self-identity changes, revealing that the students who were experiencing split identity change varied from 11.5% to 22.9%. It also found that students with high English proficiency seemed to experience more cultural identity changes. For example, regarding subtractive identity change, student groups who passed College English Tests Band 4

(*MD*=0.418, *p* = .037) (for non-English major test) and Band 6 (*MD*=0.979, *p* = .000) (for non-English major test) and Band 8 (*MD*=2.34, *p* = .001) (for English major test) were respectively higher than the student group below Band 4. Band 6 (*MD*=0.561, *p* = .021) and Band 8 groups (*MD*=1.922, *p* = .017) scored respectively higher than Band 4.

In Japan, Ryan (2008) conducted a mixed-method study, including a survey on 2397 Japanese English learners in secondary and tertiary institutions consisting of English-major students and non-English-major students and 10 semi-structured interviews with English-major students. Survey data showed that six variables (i.e., cultural interest, attitudes towards L2 community, international contact, travel, international empathy and interest in foreign languages) were all correlated to each other and to the criterion measure (e.g., intended effort) across different study groups (i.e., secondary students, English majors and non-English majors). As a result, he merged these six variables into one variable labelled "cosmopolitan outlook" (p. 208). The survey results revealed that cosmopolitan outlook was strongly correlated with ideal L2 self (*r*=.74) and a smaller correlation was reported with intended learning effort (partial correlation *r*=.34). Thus, Ryan (2008) proposed that cosmopolitan outlook plays a primary role in constructing ideal L2 self but this outlook itself does not lead to the motivated behaviour. Although fear of assimilation and ethnocentrism were not endorsed across different study groups, interview data showed that there was a conflict between this cosmopolitan outlook and a sense of Japanese national identity. Respondents expressed their concern over the friction between Japanese identity and contact with the outside world.

Another mixed-method study (Jiang, 2011) explored the relationship between English learning and Chinese identities of learners in a foreign language context. This study showed that respondents (English majors in mainland China) held divergent views on their identity changes.

These divergent views were not related to their English proficiency, unlike Gao's (2005) study finding. Descriptive analysis of the quantitative data showed that fear of assimilation and ethnocentrism were not endorsed by either the self-rated high proficiency group or the self-rated low proficiency group, similar to Ryan's (2008) survey finding. In the qualitative study, many respondents commented within their interviews and journal entries that they were optimistic about the dominant status of Chinese language and its culture, although a few respondents regarded English learning as a concern in relation to Chinese culture and its language. These results were consistent with the notion that most respondents were not concerned about the threats of English learning to Chinese language and cultures, and this is different from Ryan's interview finding.

It is hypothesised that motivation appears to be related to the differences in language learners' linguistic outcomes and non-linguistic outcomes (e.g., self-concept and identity) as well (Gardner, 2005; Hall, 2002; Norton, 2000). Although the studies previously described have investigated students' potential identity changes while studying English in an EFL context, the exploration of the relationship between language learners' motivation and identity changes seems to have been overlooked. Thus, Gao and her colleagues (Gao, Zhao, & Cheng, 2007) surveyed 2278 undergraduates at 30 universities from 29 provinces of China to explore the relationship between types of motivation (intrinsic interest, immediate achievement, learning situation, going abroad, social responsibility, individual development and information medium) and the changes of self-identities among Chinese learners of English (undergraduate students). Canonical correlation analysis was employed to explore the relationship. The results showed that:1) intrinsic interest was positively correlated (r=.68) with positive identity change (i.e., productive identity change and additive identity change); 2) students who were motivated by

short-term goals (i.e., immediate achievement, learning situation and going abroad) were positively correlated (*r*=.32) to negative change (i.e., subtractive identity change and split identity change); and 3) the sense of social responsibility was positively related (*r*=.23) to polar change (i.e., productive identity change and split identity change).

In order to investigate the dynamic development of identity changes in the EFL context, Gao and her colleagues (Gao et al., 2015) conducted a longitudinal study of 1000 undergraduate students from 5 different types of universities in Beijing. Using a mixed-method, this study started with the quantitative study, administering a self-designed questionnaire five times over the four academic years, and then followed with the qualitative study, including semester interviews, learning diaries and class observations. Quantitative data analysis (one-way ANOVA) revealed that (1) the increase in subtractive identity change was the most prominent and stable among all types of identity change; (2) productive, additive and split changes showed a marked and statistically significant increase in the fourth year; and (3) productive and additive identity changes ranked relatively high on the whole and exceeded the critical value (15), implying that students could have a projection of ideal L2 self (Dörnyei, 2005). Regarding the marked increase of subtractive identity change, qualitative data analysis (thematic analysis) revealed that (1) some students began to show their fear of Chinese identity being lost upon entry into university, particularly for English-major students; (2) some students underwent the changes in language use, values, behaviour and lifestyles and showed admiration for American individualism, gradually, and particularly in the junior and senior years, and (3) it was a common phenomenon that English-major students were worried about their diminished Chinese proficiency.

2.3.2.3 L2 motivational self system. At the beginning of the twenty-first century, researchers (Dörnyei & Csizér, 2002; Ushioda, 2006) began to be concerned about whether the integrative orientation (e.g., a positive attitude towards target language and target language community) in Gardner's socio-educational model (1985) made sense in the globalisation era—when English is viewed as a lingua franca and people from the different ethnic groups communicate with others in English (Yashima, 2009; Yashima & Zenuk-Nishide, 2008) and thus there is no specific community or group referred as the target community. In addition, Gardner's socio-educational model is not linked with the cognitive motivational concepts that have been emerging in motivational psychology (e.g., self-determination; Dörnyei, 2005).

Under such a background, Dörnyei (2005) proposed 'L2 Motivational Self System' (L2MSS), conceptualising L2 motivation within a self framework. L2MSS includes three components: "ideal L2 self", "ought-to L2 self" and "L2 learning experience" (Dörnyei, 2009). Specifically, the "ideal L2 self" is the desired self in acquiring a second language (e.g., fluent, competent in using this language), and it includes integrative motives (e.g., to learn the second language to come closer to the L2 community) and internalised instrumental motives (e.g., learning English for professional development). The "ought-to L2 self" focuses on the instrumental qualities that the individual believes he/she should possess in order to fulfil obligations to significant others (e.g., learning English to meet parents' expectations) and to avoid bad consequences (e.g., failing in exams). Finally, the "L2 learning experience" is the specific situation in which learners' motives link with the immediate English study surroundings and experiences.

Theoretically, Dörnyei's L2MSS relied on "possible selves" theory (Markus & Nurius, 1986), which refers to "individuals' ideas of what they might become, what they would like to

become, and what they are afraid of becoming" (Markus & Nurius, 1986, p. 954). These three 'whats' can be labelled as the likely self, ideal self and dreaded self (Carver, Reynolds, & Scheier, 1994). Moreover, Markus and Nurius proposed another self: "the ought self (an image of self held by another)" (1986, p. 958). According to Higgins (1987, 1997), a person develops and follows a set of "self-directive standards" (Higgins, 1987, p. 321) from and through childhood. These "self-directive standards" (i.e., self-guides) play an important role in the developing person's regulatory focus. A promotion focus involves aspirations and accomplishment, whereas a prevention focus involves responsibilities and safety. These regulatory foci shape the nature of self-regulation. Further, Higgins (1997) stated that if children want to achieve aspirations and accomplishment, they will begin self-regulating an ideal self-guide that requires a promotion focus. By contrast, if children want to meet the needs of safety and responsibility, they will begin self-regulating an ought-to self-guide and a prevention focus. In other words, ideal self (i.e., desired attributes that a person hopes or wants to possess) and ought-to self (i.e., attributes that the person ought to possess in order to meet obligations) guide self-regulating behaviours resulting in attainment of a possible self (Higgins, 1998). Building on the ideas, Dörnyei (2009) further suggested that the likely or expected self would not guide behaviour since it was already presumed to be likely.

Empirically, Dörnyei's L2MSS was proposed based on a longitudinal, national survey of middle school students in Hungary studying five target languages (Dörnyei, Csizér, & Németh, 2006). Structural equation modelling of student responses to motivations and identities prompts within the five languages across three successive waves of data (i.e., in 1993, in 1999, and in 2004) demonstrated a weak correlation between integrativeness (e.g., learning English in order to learn more about its culture), the measured variable, and the English language choice (i.e.,

criterion measure) with the range from *r*=.26 to *r*=.35, and a medium correlation with English learning effort (i.e., criterion measure) falling in the range of *r*=.52 to *r*=.55.

Subsequently, Dörnyei (2009) pointed out, in relation to his Hungarian studies, that there was no empirical evidence for (1) equating the 'ideal L2 self' with integrativeness, and (2) dividing instrumentality into two distinctive but relevant categories (Higgins, 1998): instrumental promotion (i.e., approaching a desired end-state, such as finding a good job) and instrumental prevention (i.e., avoiding a dreaded end-state, such as failing in the exams).

Dörnyei's (2005, 2009) L2MSS is a new approach integrating self theory into L2 motivational research, enriching the understanding of L2 motivation within psychology framework (e.g., possible selves theory). He popularised the ideal L2 self and ought-to L2 self as important facets of L2 learners' motivation, and some studies have found positive correlations between these two selves and intended learning effort (Jiang, 2011; Taguchi, Magid, & Papi, 2009).

However, some aspects of L2MSS (Dörnyei, 2005, 2009) require our attention. Firstly, drawing on Markus and Nurius's (1986) possible selves theory, the dreaded L2 self (e.g., person with lower L2 competence whom learners might fear or dread becoming, such as a person who fails in a study programme) seems to be have been overlooked as an independent facet of motivational possible self in L2MSS. While dreaded self seems little different to the 'feared self', Dörnyei (2009) argues that the feared self is the opposite of the ideal L2 self in the same domain, whereas, the Markus and Nurius's (1986) framework suggests, in contrast, that the dreaded L2 self is an independent self rather than simply a contradiction of the ideal self. Empirically, anxiety in English learning has been found in numerous empirical studies across

different countries (Aida, 1994; Horwitz, Horwtiz, & Cope, 1986; Liu, 2006; Tóth, 2008). Indeed, Tóth's (2008) survey of Hungarian undergraduates identified three forms of dread-like feelings associated with English learning: communication apprehension (e.g., dread of communicating with others in English), fear of negative evaluation (e.g., dread of being evaluated by peers and parents and teachers) and test anxiety (e.g., worried about an English test). Jiang (2011) also reported that the English anxiety scale (e.g., I am worried that other speakers of English would find my English strange) was reasonably strongly endorsed indicating the presence of anxiety among Chinese learners of English.

Secondly, L2MSS (Dörnyei, 2005, 2009) was proposed based on a longitudinal, national survey of middle school students in Hungary studying five target languages (Dörnyei et al., 2006). It is possible that Dörnyei's survey data, which was derived from middle school students, might not have been sufficient to capture additional possible selves, simply because it is likely that younger children do not have multiple possible selves (Zentner & Renaud, 2007). Recently, more longitudinal studies on L2 motivational possible selves have been conducted from the perspective of the dynamic systems theory (e.g., self and the specific situations interact over time; Dörnyei, MacIntyre, & Henry, 2015). However, these studies are predominantly in an EFL learning context and seem to capture the learners' motivational possible selves at a specific study stage (e.g., high school, undergraduate study) and the timelines reported cover at most one semester or one academic year. These might lead to the inadequacy of L2MSS.

2.3.3 Summary

Identity in general has two main approaches: structuralist and poststructuralist. Regarding the research on identity in L2 learning, this can be grouped into two perspectives: psychological and social. Lambert's (1974) additive bilingualism and subtractive bilingualism, Gardner and

Lambert's (1972, 1985) socio-educational model and Schumann's (1978) acculturation theory all focus on learners' stable individual characteristics in the ESL context (e.g., learners' attitudes towards target language and community and L2 learning motivation) and look for stable patterns of the individual learner's mind and its L2 learning development (Gao et al., 2015). These theories seem to approach identity in L2 learning from a structuralist approach, highlighting that language belongs to a particular group and is viewed as a marker to distinguish the outsider (e.g., non-native speakers) from the insider (e.g., native speakers; Jiang, 2011). These theories relied heavily on quantitative methods (e.g., questionnaire and controlled experiment).

However, Norton's (2000) investment theory deals with identity in an ESL context from a social perspective, focusing on the interaction between individual agents (e.g., human agency and autonomy) and their environment (e.g., social power relations) and viewing identity as dynamic, multiple and even controversial. This theory thus approaches identity in L2 learning in a poststructuralist way. Likewise, Gao and her colleagues (Gao et al., 2003) approach identity in L2 learning in a poststructuralist way but in an EFL context, viewing identity as dynamic and changing over time. They (Gao et al., 2007) also tried to investigate the relationship between L2 learners' motivations to learn English and their identity changes.

In this doctoral thesis, Norton's (2000) definition of identity is used as the working definition. She believes that identity refers to "how a person understands his or her relationship to the world, how the relationship is constructed across time and space, and how the person understands possibilities for the future" (Norton, 2000, p. 5). According to this definition, identity is seen as a lens through which people can connect to other people in the world and this connection is related to the specific timeline and context.

Overall, motivation, identity and possible selves (imagination) are the three elements of Oxford's (2016) EMPATHICS model. This model outlines positive psychology characteristics that a language learner is expected to develop so that he/she would have a pleasant language learning process and would result in becoming a proficient language learner. Further, Oxford states that imagination is future-oriented and helpful in shaping who we will be and thus can influence what is likely to happen in the future. That is, imagination can connect our current actions to a future identity (Wenger, 1998). At the same time, it can also re-envision our possible selves in the process of examining our past selves and changing our current selves' perceptions and actions (Oxford, 2016). Therefore, imagination is helpful in creating identities (Pavlenko & Blackledge, 2004), and these imagined identities can be defined as possible selves if motivation relies on imagination (Ryan & Irie, 2014). In this way, motivation and identity, including possible selves, interact.

2.4 Motivation and Self-identity in Mainland China

Because this thesis explicitly investigates L2 learners of English from the People's Republic of China, it is important here to examine what is known about psychological and contextual factors within Chinese society that impact on motivation and identity formation.

2.4.1 The Psychology of Chinese People

Culture, as a contextual dimension, has drawn researchers' attention, with arguments being made that motivational models and constructs situated in the Western cultural contexts might be unsuitable for the Asian cultural contexts (Henrich, Heine, & Norenzayan, 2010). Indeed, large-scale differences have been noted between collectivist and individualistic societies in terms of attitudes toward authority, gender and identity (Hofstede, 2007).

Meeting others' expectations is normally viewed as an indicator of an external regulation factor (e.g., I learn English because I have the impression that it is expected of me). However, in this study it was considered to be an introjected expectation, because meeting others' expectations, particularly meeting significant others' expectations, is an internalised part of Chinese socialisation. In Confucian heritage cultures, learning requires personal responsibility and, at the same time, importance is placed on the fulfilment of family obligations and the needs of others over the needs of the self (Koh, Shao, & Wang, 2009). The importance of obligation as a motivator among members of East Asian societies does not just refer to going along with expectations, but also contains a great sense of agency and positive self-regard while doing their duty (Buchtel, 2009).

In addition, individualistic cultures tend to view positive emotions as desirable (Eid & Diener, 2001), while within collectivist cultures the negative emotions (e.g., shame and guilt) that learners experienced can lead to self-improvement (Wong & Tsai, 2007). In China, shame and guilt of failure are used to motivate people (Wong & Tsai, 2007). That is, shame and guilt in collectivistic contexts rather than in individualistic contexts, are more positively valenced because they can lead to more adaptive and better consequences (such as self-improvement; Wong & Tsai, 2007). Dörnyei's L2MSS (2005, 2009) seems to overlook negative emotions. Therefore, it is unclear whether the L2MSS, derived from Western studies and theories, is a sufficient basis for describing all possible selves of Chinese English learners.

2.4.2 Motivation of Chinese Learners of L2

Since the beginning of the twenty-first century, motivation research in Mainland China has become popular and important. Most of the studies conducted in this context have focused on English learning motivations of students at the tertiary level (e.g., Gao et al., 2003; Huang &

Wen, 2005; Liu, 2001; Qin & Wen, 2002). The relatively large-scale and important motivation studies in Mainland China are reviewed in this section.

In order to examine the internal structure of English learning motivation, Qin and Wen (2002) conducted a survey of 500 non-English-major students in one of five universities in Wuhan and Nanjing. Paper-based questionnaire and LISREL software were used to produce a model identifying the variables that can influence motivational behaviour (e.g., learning effort). The model was built, including ten factors: past English scores (i.e., English scores in National College Entrance Examination), controllable causal attribution (e.g., attributing past success or failure to effort), learning interest (e.g., interest in English and culture), self-efficacy (e.g., reading skills), language anxiety (e.g., feeling worried while using English), valence (e.g., evaluating the importance of studying English), short-term goal (e.g., passing the exams and tests) and long-term goal (e.g., finding a good job and study abroad), mastery goal orientation (e.g., mastering English) and motivational behaviour (e.g., learning effort and sustained motivation). This model revealed that learning interest had the strongest and direct influence (i.e., +.34) on motivational behaviour and that mastery goal orientation (i.e., +.22), self-efficacy (i.e., +.21) and long-term goal (i.e., +.21) had the second strongest and direct influence on motivational behaviour. These results suggest that motivation is multifaceted and that its impact on motivational behaviour (e.g., learning effort) is complicated.

In contrast to the Qin and Wen (2002) study, Gao and her associates (2003) conducted a large-scale paper-based questionnaire to elicit possible types of the motivation of 2,278 undergraduates at 30 universities across mainland China. The exploratory factor analysis found seven factors accounting for 54.54% of variance; that is, (1) intrinsic interest (e.g., like the target language and culture), (2) immediate achievement (e.g., get higher grades in the exams or meet

the requirement of graduation), (3) learning situation (e.g., English classes and peer students' impact on English learning), (4) going abroad (e.g., find a better education in overseas countries), (5) social responsibility (e.g., contribute to the prosperity of China), (6) individual development (e.g., find a good job), and (7) information medium (e.g., use English to obtain information about the world). These researchers argued that the social responsibility factor, not previously reported by the Attitude/Motivation Test Battery (Gardner, 2005) or L2 Motivational Self System (L2MSS) questionnaire (Taguchi et al., 2009), resulted from Confucian traditions and could be useful in understanding language learning within a Chinese or Asian English learning context (i.e., foreign language context).

2.4.3 Self-identity in Chinese Learners of L2

Dörnyei (2009) maintains that people are more likely to channel their energy into positive goals rather than avoiding failure, though he points out that perceiving bad consequences may have energising potential. This may be a reflection of a Western bias in theorising about autonomy and emotion (Buchtel, 2009). Specifically, within Chinese society, avoiding failure is an important element, as failure denies access to important social and economic benefits (e.g., scholarships, access to better education and employment offers; China Civilisation Centre, 2007). Further, failure in English study would be much worse for Chinese students due to the increasingly important role that English plays in China's education system (e.g., passing the College English Test is a prerequisite for finding a good job in China). The high-pressure examination-oriented education system in China, which gives English learning an important place (Huang & Pan, 2011), as well as the general significance of English for overseas education and future career success (Bolton & Botha, 2015), potentially generates a dreaded self in English learning among Chinese learners. Hence, L2MSS (Dörnyei, 2005, 2009) focusing on ideal L2

self and ought-to L2 self should be insufficient for capturing the whole profile of English learners from collectivist cultures, particularly Chinese learners of English.

In addition, regarding ought-to L2 self, L2MSS (Dörnyei, 2005, 2009) does not distinguish between the sense of fulfilling an obligation, an especially prominent construct in Chinese philosophy (Schwartz, 1985; Wong, 2006), and the desire to avoid a dreaded possible self which focuses on preventing feared negative consequences. Empirical work has supported these concerns. Taguchi and his colleagues (Taguchi et al., 2009) survey of 1328 participants in China found that the ought-to self focused on, consistent with the Confucian philosophy, meeting significant others' expectations rather than avoiding bad consequences. They found only a weak correlation between ought-to self and instrumentality prevention (e.g., I have to learn English because I do not want to fail the English course), indicating that it might be inappropriate to list avoiding bad consequences as part of the ought-to L2 self in L2MSS. Another survey of 158 English major undergraduate students in China (Jiang, 2011) reported that the ought-to L2 self subsumed parental encouragement, requirement, and social responsibility (e.g., I learn English in order to let the world know more about China), a facet consistent with Chinese sense of parental or filial obligation.

Therefore, L2 motivation and L2 identity research may not be sufficient for understanding Chinese learners of English. It is unclear whether the frameworks, derived from Western studies and theories, are a sufficient basis for describing all language learners situated in Asian contexts.

2.5 Research Questions

This literature review leads to important questions about the impact of different language learning contexts (EFL versus ESL) on learners' motivations (e.g., Au, 1988; Chihara & Oller, 1978; Clément & Kruidenier, 1983; Oller, 1981). Also, it is noteworthy that different motivations to learn English can lead to different identity changes (Gao et al., 2007), and students with productive and additive identity changes could have a projection of ideal L2 self in Gao and her colleagues' study (Gao et al., 2015). In addition, Dörnyei (2009) believes that integrated regulation and identified regulation should be similar to ideal L2 self and that introjected regulation and extrinsic regulation should be similar to ought to L2 self. Hence, motivations, identity changes and L2 possible selves interact with each other, as shown in Figure 4.

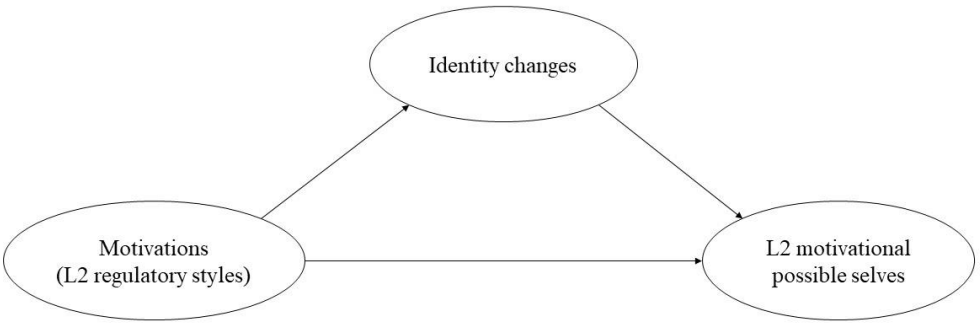

Figure 4. The interaction among motivations, identity changes and L2 motivational possible selves.

Moreover, it is believed that successful adult L2 learners must have motivations and awareness of their language learning possible selves; consequently, it is expected that these

participants can inform us richly about their motivations and selves (Ushioda, 2008). Also, investigating these participants' structural relations among motivations (self-determination), identity changes and L2 motivational self is expected to provide a successful L2 learning experience for other learners, particularly for the less successful L2 learners to draw on, given the fact that despite many years of compulsory instruction and in light of the importance of English to career, academic and social success, English proficiency of a large number of Chinese students is still unsatisfactory.

More importantly, given that Chinese society places different psychological, motivational and emotional pressures on learners than is conventionally seen in Western societies, it is possible that the frameworks reviewed here do not have robust legitimacy for Chinese L2 learners. Indeed, the argument has been made that much of what we know about psychology, cognitive science, economics and the 'behavioural sciences' is based upon research with "people from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies" (Henrich et al., 2010, p. 61). While this acronym may be seen as disparaging or insulting, it is important to remember that, relative to the global population, the societies from which educational psychology knowledge has been developed are a privileged minority. Thus, three research questions are proposed in this doctoral study:

1. What are students' (academically successful Chinese learners of English) motivations to learn English in both the Chinese EFL context and the overseas ESL context?
2. What are students' (academically successful Chinese learners of English) motivational possible selves in both the Chinese EFL context and the overseas ESL context?

3. What are the structural relations among L2 regulatory styles, identity changes and L2 motivational possible selves?

Chapter 3 Methodology

3.1 Introduction

To address the research questions posed at the end of last chapter, this doctoral study mixes methods by utilising semi-structured interviews and a statistically analysed self-report survey. Specifically, Study 1 employed a retrospective case study design with 20 English language learners from China enrolled in a PhD programme at the University of Auckland. The goals of the study were to (1) describe learners' motivations for and self-identities in learning English, (2) identify changes in motivations and self-identities across the trajectory of learners' life and study experiences, and (3) identify possible factors contributing to their success in English learning. Study 2, using ten Chinese students enrolled at the University of Auckland, trialled and evaluated potential survey instruments and selected appropriate items and scales for use with the target population. Study 3 employed a cross-sectional online questionnaire survey of 443 postgraduate and undergraduate Chinese students undertaking tertiary study in New Zealand. The goal was to explore structural relations among second language (L2) regulatory styles, identity changes and L2 motivational possible selves so as to describe the development of L2 learning. This chapter consists of five parts: (1) the logic of mixing methods, (2) sampling, (3) semi-structured interview study, (4) quantitative survey study, and (5) research ethics.

3.2 Mixing Methods

Mixing methods research is an approach that combines the elements of quantitative and qualitative approaches so as to provide a broader and deeper understanding of a research problem or a question (Johnson, Onwuegbuzie, & Turner, 2007). While strictly this approach mixes methods, it is commonly called 'mixed methods' which implies that some sort of a new hybrid method has been created. In this thesis, each method has been used according to conventions and

standards appropriate to the method. The mixing takes place through the use of results and insights from each study to inform the design of the subsequent studies and to inform a synoptic synthesis of results across all data sources.

According to Creswell (2014), mixed methods research is characterised by (1) collecting both quantitative and qualitative data and analysing the two forms of data rigorously, (2) integrating the two forms of data by merging (e.g., convergent parallel mixed methods design) or connecting (e.g., explanatory/exploratory sequential mixed methods), and (3) considering the timing of the data collection (i.e., concurrent or sequential) and the emphasis (e.g., equal or unequal) of the two forms of data.

As shown in the Figure 5 (Creswell, 2014, p. 220), in a convergent parallel mixed methods design, researchers firstly collect quantitative and qualitative data and analyse them separately, then compare the results to see if the two sources of findings confirm or disconfirm each other. In an explanatory sequential mixed methods design, researchers firstly collect the quantitative data and then analyse the data and use the results of quantitative data to plan the qualitative study. That is, the quantitative results decide the types of participants that will be selected for the qualitative study and the types of questions that will be asked of the participants (Creswell, 2014). The aim of this design is to use the qualitative findings to provide a more detailed explanation of the quantitative findings. By contrast, in the exploratory sequential mixed methods design, researchers collect the qualitative data and analyse it and then use the results of qualitative study to inform the quantitative study. That is, the qualitative results are helpful in developing the new quantitative measures (Creswell, 2014). The aim of this design is to see if the data from a small sample (qualitative study) can be generalised to a large sample of a population (quantitative study).

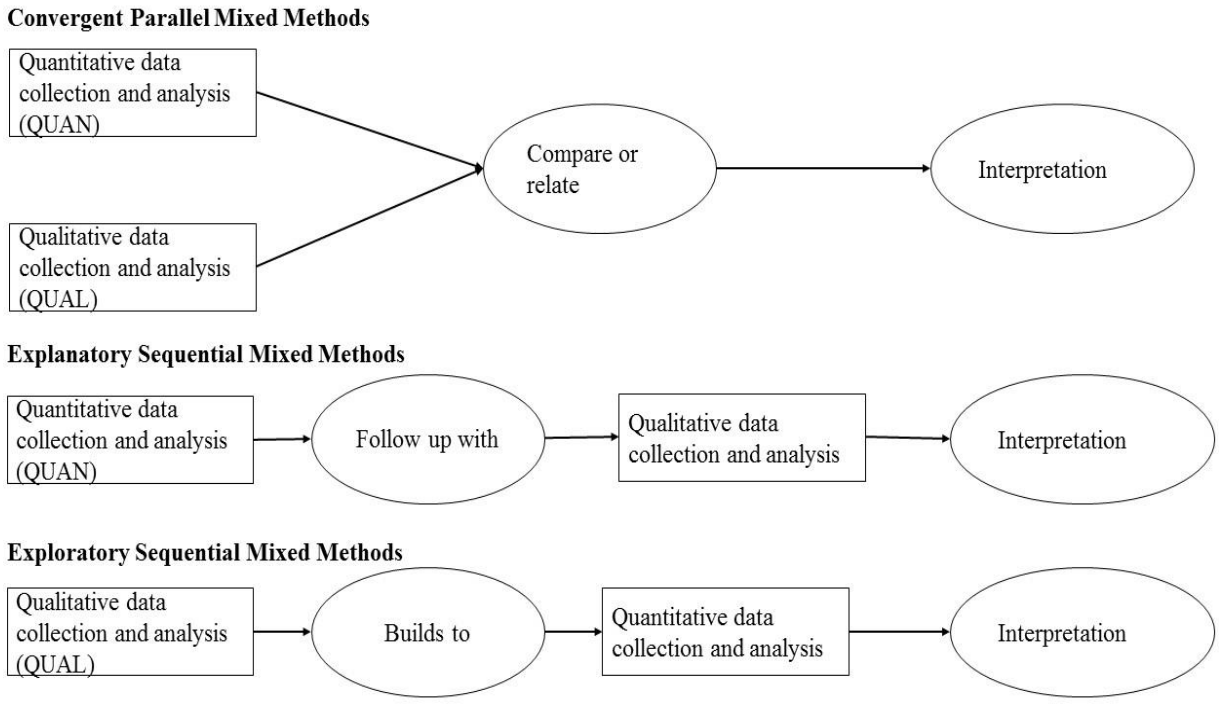

Figure 5. Three basic mixed methods designs.

As Creswell states (2014), the rationale for choosing mixed methods should be: it combines both quantitative and qualitative research and minimises the limitations of both approaches. In other words, the mixed methods design can either confirm or disconfirm the data from different approaches (quantitative versus qualitative), or it can complement the weaknesses of each approach. Specifically, the two main research designs of the quantitative approach are surveys and experiments. For survey design, the strength of quantification is to generalise or draw inferences to the population; and for experiment, its strength is to test the influence of a treatment on an outcome (Creswell, 2014). However, if the quantitative study is highly controlled (e.g., an experimental study), it is hard to confirm its validity—that is, how close the research situation is to real life (Carr, 1994). In addition, quantitative study is inflexible, whereas qualitative study is exploratory in nature and is flexible and dynamic (Duffy, 1987). The strength

of the qualitative approach is its particularity, since it provides detailed description and themes developed in a specific site (Creswell, 2014). Compared with the quantitative approach, the limitation of the qualitative approach is a lack of robust generalisation.

Previous research into motivations and selves of L2 learners has not used an exploratory sequential mixed methods design. Furthermore, previous inquiries into whether the two possible selves of the L2 motivational self system (Dörnyei, 2005, 2009) are sufficient for Chinese learners of English, who reside in an exam-driven education system (Yu & Suen, 2005) and a collectivistic culture, have not used a qualitative approach. Hence, this thesis employs an exploratory sequential mixed methods design in which qualitative data and analysis are conducted prior to a quantitative phase. That is, qualitative data inform the design of a quantitative survey and the quantitative data build on the results of the qualitative data.

The aim of this research design is to develop some measurements from the qualitative data and then to see if the interview findings can be generalised to a large sample in the quantitative phase (Creswell, 2014), and also to test the structure and relations among these constructs. In effect, this exploratory sequential mixed methods design (see Table 1) has three phases, which align with the three studies described earlier. The first phase is exploratory, based on semi-structured interviews, and the second phase is the qualitative judgement of instrument validity. The third is a quantitative large-scale survey administered in order to explore and establish self-reported attitudes of a population. Specifically, factor analytic techniques were used to handle the hypothesised latent factor structure of the survey items, followed by causal correlational analysis to explore the structural relations among L2 regulatory styles, identity changes and L2 motivational possible selves.

Table 1

Details of Exploratory Sequential Mixed Methods Procedure.

Function	Study 1	Study 2	Study 3
Type	QUAL +QUAN	QUAL	QUAN
Design	Interview	Instrument pilot	Survey
Data collection	Semi-structured	Semi-structured	Online, structured, closed-response
Sampling	Convenience & snowball	Convenience	Convenience & snowball
Data analysis	Thematic + frequency by time/stage		Factor analysis Causal-correlational analysis (e.g., structural equation modelling)

3.3 Sampling

The quality of research depends on choosing an appropriate methodology and suitable sampling strategy (Morrison, 1993). Understandably, it is very hard for researchers to gain access to the whole population of interest. Hence, samples from the whole population of interest are used. The information obtained from a sample is expected to be representative of the whole population being studied (Cohen, Manion, & Morrison, 2005). Further, four important factors in sampling need attention; that is, sample size, representativeness of the sample, access to the sample and sampling method.

3.3.1 Sample Size

The decision on sample size relies on research aim and the nature of the population being studied as well as the methodology approach (e.g., qualitative, quantitative) that researchers have chosen (Cohen et al., 2005). A quantitative approach (e.g., survey) usually needs a large sample, perhaps each variable with six to ten cases, whereas a qualitative approach (e.g., case study) tends to require a small sample. A larger sample provides greater reliability and allows more sophisticated and advanced statistics. Thus, the larger the sample the better. Additionally, the sample should be large if (1) there are many variables, (2) variables are heterogeneous, (3) the relationship between variables is expected to be small, (4) reliable measures of the dependent variables are unavailable, and (5) there are many subgroups in the sample (Borg & Gall, 1996).

Further, for quantitative data, margin error (i.e., the amount of error that researchers can tolerate), confidence level and the total number of the whole population should be taken into consideration in determining a required sample size. Generally, a 5% margin of error in the probability sampling and a 95% confidence level are recommended (Raosoft, 2013). For example, using probability sampling, researchers should recruit at least 377 participants in a target population of 20,000, in order that if the survey of 377 participants were to be repeated many times, 95% of the time the survey response would lie within ±5% variation range of the true response of the whole population (example from Raosoft, 2013). However, the required size will not increase steeply when the target population is more than 20,000. That is, the required sample size for a target population of 1,000,000 is only 384 participants (Cohen et al., 2005, p. 104).

3.3.2 Sample Representativeness

Researchers need to consider whether a sample is valid; that is, whether it can be representative of the whole population being studied. Researchers should keep in mind the representativeness of this sample and how to design the sampling frame correctly and clearly (Cohen et al., 2005). Some variables (e.g., climate) should be taken into account if they can exert influence on the research.

3.3.3 Sample Access

Access is a factor that should be considered in the early stage of a study. Researchers should be aware that access to the target population is likely to be permitted, perhaps by getting the approval of an institution's ethics committee, and practicable, with the potential for the participants' participation (Cohen et al., 2005). Researchers should consider how access to the potential participants will be undertaken; that is, consider who it is they may have to contact in order to get access to participants. Whether the study results will be permitted to be published is another concern for researchers prior to carrying out a study. For the current study, these concerns were addressed while preparing and submitting the Ethics application to the University of Auckland Human Participants Ethics Committee (UAHPEC).

3.3.4 Sample Method

There are two kinds of sampling method: probability sampling and non-probability sampling. In the former, every member of the target population has an equal chance of being included in the sample. In the latter sampling method, for every member the chance of being included in the sample is not equal—that is, some are included but others are excluded (Cohen et al., 2005). The latter sampling method is targeting a particular group. In this doctoral study, non-

probability sampling—convenience sampling and snowball sampling—was used in both a semi-structured interview study and a survey study.

3.3.4.1 Convenience sampling. Convenience sampling is sometimes referred to as accidental sampling (Burnard, 2004; MacNealy, 1999), opportunistic sampling (Barton, 2001) or haphazard sampling (Kalton, 1983). Different researchers offer different definitions of convenience sampling. According to MacNealy (1999), convenience sampling means that the researchers visit public locations and invite the people they meet to participate. Yet, Higginbottom (2004) emphasises the ready availability characteristic of this sampling technique (e.g., potential participants are easy access or contact). However, Koerber and McMichael (2008) comment that although this sampling is readily available, researchers still need to put some effort into recruiting the potential participants for convenience sampling.

Convenience sampling is considered to be a study limitation in many disciplines (Barton, 2001), since the participants that researchers recruit are likely to be similar to each other. Further, this sampling method might lead to bias in the data, as the participants might have some similarity if they come from the same educational institution or clinic, and volunteer participants would be more skilled and competitive (Lunsford & Lunsford, 1995). Another disadvantage of this sampling method is that researchers do not know what wider population this sample can represent or how this sample is different from other potential samples (Tansey, 2007). Thus, there might be a limitation on its robust generalisation. It might be risky to use this sampling data to make inferences to the general population (Kalton, 1983).

Nevertheless, convenience sampling method can save time, energy and money (Marshall, 1996). Currently, it seems to be the most commonly used sampling method in clinical research

because it is easy and fast yet the least expensive and troublesome (Lunsford & Lunsford, 1995). It can generate rich data, because the close relationship between researchers and the researchers' site is helpful in getting access to potential participants (Koerber & McMichael, 2008). In this way, the method ensures the richness of the data, which might not be reached if the sample were not familiar and thus not convenient to the researcher.

Overall, the availability of convenience sampling is a 'double-edged sword'. It can guarantee the richness of the data, but it cannot be overgeneralised due to a certain amount of similarity between potential participants.

3.3.4.2 Snowball sampling. Traditionally, snowball sampling has been used to inquire into one's immediate social environment by asking social relations questions of the interviewee (e.g., who is your best friend?) for sampling purposes. Thus, this sampling method is involved in two populations: the individual population and the individual's social relation population (Coleman, 1958). Further, Coleman argues that this sampling method was uniquely designed for sociology research as it took into account interpersonal relations. In effect, snowball sampling can be used in sociology for identifying the number of social relationships as well as in obtaining the non-probability sample in other research fields (Thompson, 2002). It can be used in easy-to-reach populations and hard-to-reach populations (Goodman, 2011). Also, many researchers believe that snowball sampling can be used in various research methods and designs and it is well suited for many research purposes (Marshall, 1998; Patrick, Pruchno, & Rose, 1998), particularly for the study of sensitive issues (e.g., opiate addiction study; Biernacki & Waldorf, 1981).

Snowball sampling selects the sample through a social network and, therefore, the disadvantage is that the members of the sample may all belong to a particular group or have a certain bias (Kumar, 2005). That is, the choice of the overall sample relies on the first group of participants who are helping researchers to identify other participants. Further, the problems of this chain referral sampling lie in the following aspects (Biernacki &Waldorf, 1981): (1) initiation of the chain referral and make sure that this chain will continue, (2) verification of potential participants' eligibility, and (3) control of the chains and of the number of cases in each chain.

However, snowball sampling can reduce potential participants' scepticism and thus reduce their reluctance to participate, because of its referral chain (Streeton, Cooke, & Campbell,

2004). In other words, this sampling method seems to increase response rates, as people are more likely to accept a participation invitation if they know the one extending the invitation or if they are referred by their acquaintances. In addition, the cost of snowball sampling is cheaper than other sampling methods (Patrick et al., 1998).

3.3.5 Sampling Concerns

In the semi-structured interview study, sixteen participants were recruited through convenience sampling. Four participants were then recruited via snowball sampling by those recruited into the study through convenience sampling. In order to avoid the disadvantage of snowball sampling method, as previously stated, particularly the possibility of data bias resulting from members of one particular group or organisation, the initial four students were chosen across different faculties at the University of Auckland (i.e., Faculty of Medicine, Faculty of Business, Faculty of Arts, and Faculty of Engineering). In relation to eligibility verification, participants were asked to show their student ID card and their doctoral registration letter to confirm their Chinese doctoral student status.

In order to avoid the disadvantage of convenience sampling, particularly the weakness of generalisation possibly resulting from the sample coming from the same institution, a large-scale survey study recruiting participants from different universities in New Zealand was conducted, in the hope of compensating for the weakness in this convenience sampling and semi-structured interviews study. In the survey study, 443 Chinese university students from different universities in New Zealand were recruited, which accounted for 3.7% of approximately 12000 Chinese university students in New Zealand universities in 2013, according to the report of New Zealand universities trends in international students (Ministry of Education New Zealand, 2013). This would create a margin of error of 4.57 % for a random sample (Raosoft, 2013); however, the

current sample arose from non-probability sampling (i.e., snowball and convenience sampling) and, therefore, the margins of error relative to the population are less robust. Yet, this sampling size is large enough to undertake the sophisticated statistical analysis which normally would require the sample of 400 or more.

3.4 Semi-structured Interviews Study

The nature of this semi-structured interview study is exploratory, in the hopes of offering "a window-like" view on the specific situation that the researcher is studying (Giacomini & Cook, 2000, p. 480). In this doctoral thesis, the semi-structured interview study used both thematic analysis and frequency in data analysis.

Semi-structured interviews incorporate a set of questions used in structured interviews as well as reflecting the open-ended and explorative nature of unstructured interviews (Wilson, 2014). Semi-structured interviews use questions, prompts and other resources to draw interviewees fully into the research topic; they combine open-ended questions with theory-driven questions in order to elicit the data which are grounded in the interviewees' life/study experience as well as being guided by the existing frameworks of the researchers' research field (Galletta & Cross, 2014). Semi-structured interviews focus on a set of predetermined open-ended questions, and new questions emerge from the conversation between interviewer and interviewee (Dicicco-bloom & Crabtree, 2006). Thus, semi-structured interviews reflect more flexibility and are useful in probing interviewees' attitudes.

Although it takes a longer time to conduct semi-structured interviews and it is harder to carry out data analysis, semi-structured interviews help the interviewer to develop a rapport with respondents and thus to probe a new area so as to generate more data (Smith, Harre, &

Langenhove, 1995). Semi-structured interviews look like free conversations (Fylan, 2005), rather than asking a series of questions, and the conversation can be easily changed between participants. This flexibility of semi-structured interviews makes it more suitable for addressing a ‘why’ question than a ‘how many’ question. Additionally, semi-structured interviews create a more stress-free atmosphere and thus they are appropriate for discussing a sensitive or private topic. It is worth noting that the interviewer should steer the interview subtly, instead of asking a leading question.

3.4.1 Data Analysis

The nature of data analysis in this semi-structured interview study is a mixed methods approach, as both a qualitative approach (e.g., thematic analysis) and a quantitative approach (e.g., frequency counts) were used. Thematic analysis was used to identify the themes (patterns of meaning), and the aim of quantifying the qualitative data was to pursue the effectiveness from a mathematico-statistical point of view (Hayashi, 1952).

3.4.1.1 Thematic analysis. Thematic analysis is a method of looking for and analysing and reporting patterns of meaning in a data set (Braun & Clarke, 2006). It identifies the patterns that are important in the description of the whole data and which are related to the research questions (Daly, Kellehear, & Gliksman, 1997). Thematic analysis is considered as the most commonly used analysis in qualitative research (Guest, MacQueen, & Namey, 2011), as identifying the patterns of meanings as themes is a generic skill in qualitative analysis (Holloway & Todres, 2003). It should be considered as a fundamental method in qualitative analysis, as theoretical freedom of thematic analysis makes it possible to provide a rich but complex description of data (Braun & Clarke, 2006).

The focus of thematic analysis is to identify the themes (patterns of the meaning) within the data, and the way and the level in/at which to examine the themes that are related to research questions need to be explicitly explained. There are two primary ways of identifying the themes (Braun & Clarke, 2006): either inductive (Frith & Gleeson, 2004) or deductive (Boyatzis, 1998). The inductive method is linked to the data and thus is data-driven (Patton, 1990), whereas the deductive method is linked to theoretical or analytic interest in the research area and thus is theory-driven or analyst-driven. Likewise, two levels of identifying the themes are at either a semantic level or at a latent level (Boyatzis, 1998). The former level tends to focus on only one dimension, scratching the surface meaning of the data, and thus the analytic process is not beyond what the participants have said or written. By contrast, the latter level is three-dimensional, capturing the features that contribute to forms and meanings, and thus the analytic process is to identify the underlying ideas, assumptions and conceptualisations that can shape the semantic meaning of the data.

As Braun and Clarke (2006) state, one of the advantages of thematic analysis is flexibility, as many theories can be applied to this method across a variety of theories and epistemologies. They also state that thematic analysis is accessible to novice qualitative researchers and suited well to large data sets and can be applied to various researcher questions that go beyond personal experience. Yet, they indicate that flexibility would give rise to difficulty in developing a specific guideline for the higher phase of analysis and to confusion about which aspect of the data researchers are supposed to focus on. Additionally, they state that the interpretation power of thematic analysis will be limited if it is not situated within the established theoretical framework, and that thematic analysis could not maintain the sense of continuity of data in the individual's account.

According to Guest et al. (2011), thematic analysis is the most useful method for identifying the complexity of meanings within the textural data. However, they are concerned about the reliability issue of thematic analysis and argue that reliability should be implemented in the analytic process because a lot of interpretations of thematic analysis involve defining the codes and applying them to the chunks of texts. Regarding the analytic process, Braun and Clarke (2006) posit that this process should go through six phases: familiarising with the data, creating initial codes, seeking themes, reviewing themes, defining and naming themes and writing the final report.

In this semi-structured interview study, a simpler set of data analysis steps (Bryman, 2015) was followed: (1) label or code the relevant original sentence, (2) group similar codes into a category, and (3) look for patterns among or between categories. Patterns can be identified in two ways, as recommended by Joffe (2012), in the hope of increasing the interpretation power of thematic analysis: first with deductive analysis to search for responses coherent with the

motivation and self-identity categories described in the literature and, subsequently, inductively, to identify possible new constructs and relationships embedded in the interview data.

In order to enhance the reliability of thematic analysis, this semi-structured interview study followed a rigid analytic process which made use of a data dictionary with definitions and example statements (see Appendix A, B and C). Firstly, two randomly selected interview transcripts representing a substantial proportion of the data (e.g., 10% to 20%; Joffe, 2012) were used by two independent judges. Next, the kappa coefficient was calculated to measure the inter-rater reliability of categorical items using the proportion of interviews that were mutually classified to the same category—that is, using the kappa coefficient to measure the pairwise agreement among multiple judges making categorical judgement (Carletta, 1996). Regarding the participants' motivations, kappa coefficients between I (Jing Yu) and Coder 1 and Coder 2 were good (κ=.83 and κ=.95, respectively) and for their motivational possible selves, kappa coefficients between I and Coder 1 and Coder 2 were also good (κ=.82 and κ=.76, respectively) and for their potential causes to success in English learning, between I and Coder 1 and Coder 2 were good (κ=.85 and κ=.83, respectively). Analyst narratives and participants' illustrative statements were provided in this study to clarify the scope and the diversity of each theme.

The codes with at least two participant statements assigned to the same code were reported, and finally, (1) English learning motivations were categorised as belonging to one of 12 different codes and two motivations (i.e., controlled and autonomous), (2) motivational possible selves in learning English were categorised as belonging to one of 14 different codes and three possible selves (i.e., dreaded, ideal, or ought-to), and (3) possible factors contributing to these participants' success in English learning were categorised as belonging to one of ten different codes and two dimensions of locus of control (i.e., internal locus and external locus).

3.4.1.2 Quantification. Quantification can be used in thematic analysis through statistical analyses, and the units of these analyses go beyond the word or phrase (Boyatzis, 1998). Namey, Guest, Thairu and Johnson (2008) state that the comparison of the frequency of themes may be included in thematic analysis. Further, they argue that compared with word count, assessing the frequency count of themes takes the context into account, and thus frequency count is a useful analytic technique. However, Pope and colleagues (Pope, Ziebland, & Mays, 2000) point out that results in relation to frequencies may be misleading, since the aim of qualitative sampling is not to find out a group of participants representing the population of interest statistically, and that at times the simple counts could be helpful in providing a summary of the relative results.

According to Hayashi (1951), quantifying qualitative data is an important method in social and natural science research and is also useful in analysing data and designing a study. Further, he argues that this quantification can increase the validity, reliability, objectivity, reproducibility, consistency and accuracy of the data. That is, this quantification can pursue effectiveness, rather than statistical estimation or hypothesis testing. Lastly, he states that quantifying qualitative data has functional and operational meaning, not absolute meaning, and in this way, it helps researchers to achieve their research aim. However, Bazeley (2004) states that while quantifying qualitative data some statistical analyses (e.g., reporting the percentages) should not be applicable to a small sample where *N* is less than 20.

In this semi-structured interview study with 20 participants, quantification method was used to provide a deep and complex description of the data, in the hope of capturing the changes in motivations and motivational possible selves across different learning contexts. Specifically, frequency counts were used to report the prevalence of each theme and sub-theme, and effect size was calculated to investigate if the changes in participants' motivations and motivational

possible selves across different learning contexts (i.e., EFL compared with ESL) are ‘small’, ‘medium’ or ‘large’.

In terms of frequency counts of the themes (i.e., coding applications), the decision to report the total number of times a code showed up in the textual data was due to the following two reasons. Firstly, before making such a decision, the potential pitfall of reporting this coding frequency, rather than reporting the number of participants giving the same code, was taken into full consideration. That is, every participant’s transcript was checked carefully in order to confirm that no participant gave the same coding idea many times in a specific study stage, which would increase the total frequency of the codes. Secondly, reporting coding frequency is helpful for identifying the common themes and the rare themes as well (Namey et al., 2008). As to participants’ motivations to learn English, they indicated the strength of each motivation against each timeline using five indicators (i.e., very high, high, medium, low, very low). The frequency of motivations rated as medium to very high was then determined, rather than for motivations with low and very low strength, which cannot properly be understood to be motivated behaviours.

Finally, ordinal polychotomous frequencies (Lipsey & Wilson, 2001) were used to calculate a standardised effect size for the differences in the frequency of motivation codes and motivational possible selves across different learning contexts (i.e., EFL compared with ESL). The chi-square distribution of the ideal and dreaded L2 self in Chinese K-12 schooling (i.e., primary school, middle school, and high school) and university level study (i.e., undergraduate, postgraduate and doctoral) were also evaluated with a standardised effect size using the Wilson calculator (Lipsey & Wilson, 2001).

3.5 Quantitative Survey

Before undertaking the large-scale online survey, a semi-structured interview study was employed to test the instrument validity—that is, readability of the questionnaire items and participants' preference to the rating scales.

3.5.1 Instrument Validity

Using ten Chinese students enrolled at the University of Auckland, potential survey items and scales were trialled and evaluated and then appropriate items were selected. The primary methods used were observations and semi-structured interviews. Participants' behaviour was firstly observed when they were reading the survey (e.g., noting any apparent difficulties and monitoring completion time of items), and then they were interviewed upon completing the survey (soliciting feedback and overall satisfaction with the survey experience). Participants' information and data collection procedure and the results of data analysis are presented in Chapter 5 (section 5.2.3.6), but the data analysis is presented in the following subsection.

3.5.1.1 Analysis. This analysis focused on assessing the usability of the instrument and seeing whether instructions, questionnaire items and rating scales made sense to the participants. The analysis followed these procedures (Mertens, 2010): (1) read the comments given by the participants, particularly the items that need additional clarification, and (2) change, add, or delete some questionnaire items as needed. Specifically, if one participant suggested that this item should provide Chinese translation, the Chinese translation would be provided, and if more than two participants responded that this item was ambiguous, or meaningless in the ESL context, or redundant, this item would be removed. With regard to the participants' rating scale preference, the percentage of the participants who were choosing the same set of rating scale was calculated, and the reasons for choosing it were summarised.

3.5.2 Data Administration (Electronic Questionnaire)

An online Qualtrics survey, that is, electronic questionnaire, was administered in September 2015 in accordance with the protocols approved by the University of Auckland Human Participants Ethics Committee (#HPEC 015462). As computer-mediated communication has been widely used (Horrigan, 2001; Nie & Erbring, 2000), the internet has opened up a new channel for surveying, and thus some researchers, particularly those interested in studying the behaviour of online population, have begun to use the electronic questionnaire (Andrews, Nonnecke, & Preece, 2003; Yun & Trumbo, 2000).

One of the advantages of the internet-based electronic questionnaire is its access to a ubiquitous population (Wright, 2005). That is, it can gain access to potential participants in distant regions and can reach out to the population who are hard to contact through a conventional survey mode (e.g., phones or mails) or reluctant to have face-to-face communication. Another advantage is to minimise the measurement error so that the data quality

can be improved: that is, the electronic questionnaire can eliminate transcription errors, and it can be programmed to check the input validity of respondents' answers and to manage the skipping of questions (Fricker & Schonlau, 2002). The electronic questionnaire is time-saving, as it can be transmitted instantaneously, reaching thousands of potential participants in a short amount of time, despite the distant population located in remote geographic regions (Bachmann & Elfrink, 1996; Taylor, 2000; Yun & Trumbo, 2000). Currently, many web survey software programmes can save and export the questionnaire data in a form that the statistical software can read directly, saving the time that might be taken in data entry. Compared with the conventional survey modes (e.g., mail), the electronic questionnaire has a low cost, without postage, printing and data entry costs (Llieva, Baron, & Healey, 2002; Watt, 1999; Witmer, Colman, & Katzman, 1999). Although researchers need to spend some money on purchasing web survey software (e.g., Survey Monkey), this cost is cheaper than the cost of travelling and purchasing recording equipment (Wright, 2005).

However, internet-based surveys can result in a coverage problem. That is, the population that the internet can reach out to is still smaller than those in the conventional survey mode, and large percentages of the population may not respond to an electronic questionnaire correctly (Fricker & Schonlau, 2002). Respondents can respond to web-based questions more quickly since they are moving from screen to screen and this quickness might result in errors impacting study results (Stern, 2008). The response bias can arise because the internet might not be accessible to the target population due to a coverage problem of the internet (Schonlau, Van Soest, Kapteyn, & Couper, 2009). It has been found, after conducting a survey of past literature about internet-based surveys, that another issue exists around the use of electronic questionnaires. Fricker and Schonlau (2000) state that the electronic questionnaire has a poor or

moderate response rate. Also, the response rate of an electronic questionnaire will decrease over time, although the reason for this decline is identified (Sheehan, 2001). The coverage problem of the internet can also influenced by cyber safety; for example, internet users might consider the email they received with the survey link to the electronic questionnaire as spam or virus-infected, which might contribute to a low response rate.

3.5.2.1 Addressing the electronic questionnaire concerns. The target population of this online survey study is students from China undertaking tertiary study in New Zealand, and all of them have access to the internet, with their email and university ID allocated by the university. Thus, the coverage problem of this electronic questionnaire should be avoided, since university students would have more access to the internet and they are expected to be proficient at using a computer and internet (Fricker & Schonlau, 2002). In order to help respondents to use web-based questionnaires correctly, they are reminded to read through and complete the questionnaire carefully, and to follow the questionnaire instructions. Also, a clear and easy navigation for all questionnaire items is possible due to the design of the questionnaire, as well as the provision of a reminder to press the 'submit' button when completing the survey (Thomas, 2004).

Regarding the possibility of a relatively low response rate of the electronic questionnaire, incentives (e.g., the opportunity to go into a draw to win a prize) were used to increase the response rate in this study, although a university population seems to have achieved higher response rates in past web-based survey studies (Fricker & Schonlau, 2002). Also, this survey was administered through mixed response modes so as to enhance the response rate (Fricker & Schonlau, 2002). That is, students were invited to participate in the study via an email including the link to the web-based survey as well as a QR code that could be scanned to access the survey by smartphone. Additionally, more than 800 copies of the invitation advertisement including that

link and QR code were handed out to the potential population, in the hope of increasing response rate.

The data quality is generally measured by either the number of respondents having missing items or the percentage of missing items (Fricker & Schonlau, 2002). In order to ensure data quality, some specific logic functions of the online survey software (e.g., Qualtrics) were employed to make sure that every questionnaire item was answered. Also, one logic function was used to check respondents' eligibility. That is, upon getting access to the online questionnaire, the first question is 'Are you an international student with Chinese citizenship undertaking tertiary study in New Zealand?'—with two options, 'Yes' and 'No'. If the answer is 'No', then it will directly skip to the end of the questionnaire.

3.5.3 Data Analysis

There are two types of causal-correlational analysis: cross-lagged correlations (Campbell & Stanley, 1966) and path analysis (Blalock, 1964). The former deals with the measurement of the two models at two points in time, whereas the latter is collecting the data at a single point in time and its logic bears resemblance to theory-testing approach (Feldman, 1975). Further, path analysis is considered as a special case of structural equation modelling in which the causal paths existing between the variables are specified and the parameters of causation are identified. Path analysis deals with only observed variables and thus assumes that all variables are measured without error, whereas structural equation modelling deals with both the latent variables and observed variables and uses the latent variables to explain the measurement error.

Also, according to Heise (1969), structural equation modelling (SEM) is a valid structural model, because (1) it can deal with larger systems in which more complicated causal

relationships are involved, (2) it is likely to calculate how a change in one variable will lead to the change in other variables, and (3) it might analyse how the change in the structure of system would impact the character of the system. However, he is concerned about the feasibility of the structural model. Specifically, experiment research design was traditionally the ideal approach to conducting structural models in which the forms and the parameters of a structural model were completely decided. However, an experimental design might not be employed due to the ethical and practical problems in the social science research field, and thus Heise states that there are two approaches to dealing with the non-experimental data: a longitudinal approach and a cross-sectional approach. In the former approach, the cause-effect changes are measured as they occur, and three techniques are useful to implement that approach: quasi-experimental research design (Campbell & Stanley, 1966), panel studies (Coleman, 1964) and cross-lagged correlations (Pelz & Andrews, 1964; Rozelle & Campbell, 1969). By contrast, in the cross-sectional approach, the cause-effect changes are measured after they have occurred and one supposes that at any one point in time some individuals or groups in the population experienced the causal-effect change and others did not (Heise, 1969).

In this survey study, path analysis with a structural model (e.g., structural equation modelling) was employed in analysing this cross-sectional survey data so as to specify the causal paths and identify the causal parameters among L2 regulatory styles, identity changes and L2 motivational possible selves, which will be discussed in the next section. This was followed by a process of confirmatory factor analysis and the application of a two-step approach (Anderson & Gerbing, 1988).

3.5.3.1 Structural equation modelling. Generally, structural equation modelling (SEM) refers to the statistical models used to attest the validity of substantive theories with empirical data, and it is an extension of general linear modelling (GLM) procedures (e.g., ANOVA and multi-regression analysis; Lei & Wu, 2007). SEM is applicable to experimental and non-experimental research designs, and longitudinal and cross-sectional data as well. Further, the primary advantage of SEM over GLM is that it can be employed to examine the relations among latent constructs that are indicated by multiple measures (e.g., observed variables; Lei & Wu, 2007).

GLM works with the assumption that both independent variables and dependent variables can be observed without measurement error (Bollen, 1989). Yet, Cronbach and colleagues (Cronbach, Gleser, Nanda, & Rajaratnam, 1972) propose that there are two types of measurement errors in measurement theory: systematic (non-random) measurement error and random measurement error. Systematic measurement error in the questionnaire items could perhaps be due to the item characteristic or respondent characteristic (Aish & Jöreskog, 1990). An example of item characteristic is that this factor or construct has few observed variables, that is, a small omitted factor (Byrne, 2012), and an example of the respondent characteristic is that respondents tend to answer 'Yes' or 'No' to some specific questions or to have social desirability bias (Aish & Jöreskog, 1990). By contrast, random measurement error, as its name implies, is random in nature and very hard to predict. Therefore, it is seen as either the random disturbances or unpredictable fluctuations in measurement (Deshon, 1998), which might be due to interference from the environment in the measurement process. Deshon (1998) explains that SEM can be used to estimate the relationships among latent variables and to correct the relationships among latent variables for measurement error (systematic measurement error) in

the indicators of latent variables. Further, he emphasises (p. 420) that "if the indicators contain errors due to raters and items, then the relationships will be corrected for these—and only these—sources of error."

A mediating variable is a variable that can act as both the source variable (i.e., exogenous variable, similar to independent variable) and the result variable (i.e., endogenous variable, similar to the dependent variable) in the chain of the causal hypothesis. Mediation modelling can be included in SEM; that is, SEM can incorporate independent variables, dependent variables, and mediating variables into the same model (Byrne, 2001; Hoyle, 1995; Klem, 2000; Lei & Wu, 2007; Maruyama, 1997; Raykov & Marcoulides, 2007; Thompson, 2000). Further, the feedback loops among variables and reciprocal causation are permissible in SEM (Lei & Wu, 2007).

Although SEM can account for systematic measurement error, it needs to meet the identification requirement proposed by Bollen (1989) in order to account for the specification error (Shadish, Cook, & Campbell, 2002). Bollen (1989) clearly states that at the measurement level there are three identification rules: "t-Rule, Three-Indicator Rule, and Two-Indicator Rules" (p. 247). The Two-Indicator Rule 1 has been used to meet the identification requirement in this doctoral study; that is, (1) Every latent construct has two or more observed variables, (2) sets of observed variables pertain strictly to each factor, and (3) the errors related to the observed variables are uncorrelated. Bollen states that at the structural level it is common for the model with mediating factor to meet the Recursive Rule requirement (1989, pp. 95-98) in which the flow of the causation is unidirectional and there are no correlations between the errors. Overall, SEM can be a robust and powerful method for assessing empirical data and developing theories if it is supported by a solid theoretical framework and meets the identification requirement and does not have specification errors (Bollen, 1989).

3.5.3.2 Confirmatory factor analysis (CFA) and two-step approach. Anderson and Gerbing (1988) put forth that a model-building process should take a two-step approach within a confirmatory framework: (1) a measurement model specifying the relations of the observed variables to the latent variables with the covariance relationship between the latent variables; and (2) a structural model specifying the causal relationships among latent factors. They proposed that the specification of the separate measurement and structural models provides a useful framework for the formal comparisons between the substantive model of interest and the most likely theoretical model. The measurement model can provide a comprehensive evaluation of the construct validity (Bentler, 1978) by assessing both the convergent validity, referring to the degree of confidence that researchers have that a construct is measured by the indicators (i.e., observed variables), and discriminant validity, referring to the degree to which the different constructs are unrelated (Campbell & Fiske, 1959). If the measurement model achieves the acceptable model fit, the structural model will provide a comprehensive evaluation of nomological validity, the degree to which the construct behaves as it should within a nomological network (e.g., a system with related constructs). Many model fit indices are used to assess whether the measurement model and structural model can fit the current data set and are provided in the next section.

3.5.3.3 Model fit indices. It is almost impossible to find out the absolute cut-off values for fit indices for a measurement model and structural model, similar to seeking the mythical Golden Fleece (Marsh, Hau, & Wen, 2004). Also, no one model fit index can accurately assess whether the model fits the actual data, and thus in all cases the validity of the model depends on the fit of the model to the data as indicated by multiple indices (Fan & Sivo, 2005; Hu & Bentler, 1999). Not all fit indices are equally robust in light of large samples, complex models or model misspecification (Fan & Sivo, 2007). Further, multiple model fit indices can be grouped into two categories: (1) badness-of-fit measure, where the indices decrease as the fit improves, including the chi-square (χ^2), Root Mean Square Error of Approximation (RMSEA) and Standardised Root Mean Square Residual (SRMR), and (2) goodness-of-fit measure, where the indices increase as fit improves, including Comparative Fit Index (CFI) and Gamma Hat ($\widehat{\boldsymbol{g}}$).

Chi-square (χ^2) is a basic model fit index and thus it is commonly reported, although it is sensitive to larger sample sizes (Byrne, 2001; Kline, 2005; Vandenberg & Lance, 2000). Further, the chi-square test can work well with a sample size from 70 to 200 cases, but it is always statistically significant with a sample with more than 400 cases (Kenny, 2015). In order to cope with this problem, the chi-square to the degrees of freedom (i.e., χ2/df) ratio and the probability of this ratio should be seen as the model fit indices, along with the chi-square (Marsh et al., 2004). A χ^2/df ratio of 3.83 or less is non-significant (i.e., $p > .05$), suggesting an acceptable model fit.

SRMR is an absolute measure of fit; it is an index of the average of the standardised difference between the observed correlations and the predicted correlations in the model (Chen, 2007). SRMR is resistant to the impact of sample size, model complexity and model misspecification (Fan & Sivo, 2007; Hu & Bentler, 1999; Vandenberg & Lance, 2000). The

value of SRMR ranges from .00 to 1.00., with less than .08 being acceptable and close to .06 being considered as good (Hu & Bentler, 1999). The value will decrease if the measurement model has higher factor loadings (Anderson & Gerbing, 1984).

RMSEA is also an absolute measure of fit and is the most commonly reported fit index (Kenny, 2015). The mathematic formula of RMSEA incorporates chi-square, sample size and degrees of freedom. However, it will produce a misleading result when working with a model with a small sample size ($n < 250$) and low degrees of freedom, particularly the latter. Therefore, some researchers argue not to compute RMSEA for a model with low degrees of freedom (Kenny, Kaniskan, & McCoach, 2014). Also, it is sensitive to model complexity and specification error (Fan & Sivo, 2007). RMSEA tends to decline as the number of variables in the model increase, particularly with large sample size (Fan & Sivo 2005; Hu & Bentler, 1998; Kenny & McCoach, 2003). The value of RMSEA less than .08 suggests an acceptable model fit and less than .05 suggests a good fit (Byrne, 2001).

The comparative fit index (CFI) is an incremental index used to test the extent to which the tested model is better than the alternative model in which all observed indicators are uncorrelated (Byrne, 2012). CFI is relatively independent of the sample size and works well with a model with small sample size (Chen, 2007; Hu & Bentler, 1998). However, it is quite sensitive to complex models—that is, the models with either more factors (i.e., >3) or a hierarchical structure (Cheung & Rensvold, 2002). A CFI with .90 or above indicates an acceptable model fit, and .95 or above suggests a good fit (Hoyle, 1995). CFI and TLI (Tucker-Lewis Index) are highly correlated and CFI is more commonly reported than TLI, as Hu and Bentler (1998) have demonstrated the strong power and robustness of CFI. Hence, only CFI without TLI is reported in this study.

Gamma Hat ($\hat{g}$) formula, initially proposed by Steiger (1989), incorporates RMSEA value and the number of observed variables and the degrees of freedom in a model (Fan & Sivo, 2007). Researchers have shown that, similar to SRMR, it is resistant to the impact of large samples, model complexity and model misspecification (Fan & Sivo, 2007). The gamma hat value of .90 or above indicates an acceptable model fit, and .95 or above suggests a good fit (Byrne, 2001; Hoyle, 1995).

Akaike Information Criterion (AIC) (Akaike, 1973) is a comparative measure fit used to compare two different models. Lower values of AIC indicate a better model fit and thus the model with lowest AIC value indicates the best model (Kenny, 2015). The difference in the Akaike Information Criterion, (ΔAIC) represents the difference between the best model, which has the smallest AIC and other models (Burnham & Anderson, 2002). If $\Delta AIC < 2.00$, there is substantial support for the claim that any two models are equivalent. If $2.00 < \Delta AIC < 4.00$, there is some support for the smaller model; if $4.00 < \Delta AIC < 7.00$, there is considerably more support for the smaller model; and if $\Delta AIC > 10$, there is essentially no support for the larger model. A second approach is to use the proportion of AIC weight (wi) assigned to each model. The Akaike Information Criterion wi represents the relative likelihood of a model. All models whose wi > .95 can be deemed to fit the data equally well. Models with wi<.05 can be rejected as not fitting the data.

Researchers are recommended, therefore, to report the multiple-model fit indices (Fan & Sivo, 2005; Hu & Bentler, 1999), and the following standards have been used to identify models that did not need to be rejected: $p > .05$ for the $\chi 2/df$ ratio, gamma hat> .90, RMSEA and SRMR < .08 (Fan & Sivo, 2005; Hu & Bentler, 1999; Marsh et al., 2004).

3.5.3.4 Modelling. In accordance with the two-step process (Anderson & Gerbing, 1988), modelling in the current study consisted of two parts. The first part dealt with the development of robust measurement models, including bifactor analysis, for the three constructs (i.e., L2 regulatory styles model, identity changes model and L2 motivational possible selves model). The second part used structural equation modelling to ascertain the causal paths among structures for the prediction of each L2 identity.

Three measurement models (CFA). The measurement models firstly were tested, dealing with three frameworks: L2 regulatory styles (Noels et al., 2000), identity changes (Gao et al., 2005) and L2 motivational possible selves (Taguchi et al., 2009). Additionally, the substance, that is, conceptual meaning of each questionnaire item in the model, was also taken into consideration.

Three basic steps for conducting the data analysis were as follows: (1) all models were based on the prior knowledge or theory, and thus confirmatory factor analysis was used to test the original measurement model in each framework and the trimmed model, (2) confirmatory factor analysis was used to attest the validity of the added factors, that is, the social responsibility factor (Gao et al., 2007; Jiang, 2011), integrated regulation factor and dreaded L2 self factor, respectively, and (3) confirmatory factor analysis was used to attest the validity of the revised model that adds the additional factors to the original model and then to the original trimmed model, and apply some further model adaptive revision if applicable.

Bifactor modelling. Bifactor modelling assumes that both a common general factor and specific sub-factors have direct influences on the indicators, and these joint influences can create better fitting models than traditional unique factor only models (Canivez, 2016). A general factor

represents the commonly shared variance of a set of unique factors. Instead of subordinating the unique factors under the general factor (i.e., as in hierarchical models), a bifactor model has direct paths to all observed indicators from both the general factor and to the appropriate items from the specific subgroup factors.

Bifactor modelling is useful to understand the structure of multifactor tests and assisting in determining the scores that can be appropriately interpreted (Canivez, 2016). Bifactor modelling can be used to validate the construct of a multifactoral instrument. If a measure has items that are explained both by a common shared cause (e.g., L2 learning) but also from specific content within the domain that separates them from each other, then bifactor modelling can be used. Empirically, bifactor modelling is generally easier to fit data than hierarchical modelling (Cucina & Byle, 2017). According to Chen and colleagues (Chen, Hayes, Carver, Laurenceau, & Zhang, 2012), because more parameters are estimated, bifactor modelling requires large sample size, and this modelling may be inappropriate due to weak loadings, nonconvergence, and poor fit. In spite of these limitations, they believe that bifactor modelling can be used in a wide range of psychological constructs. It can also retain simple structure for each factor, in that items belong to only one unique factor and a general shared factor.

Structural equation modelling. Structural modelling with mediation analysis and indirect effects were tested in this study. Firstly, three specific structural models, that is, ideal L2 self, ought-to L2 self and dreaded L2 self, were built in accordance with the theoretical frameworks and empirical study. That is, a main dependent variable (endogenous variable) was specified and then the independent variables (exogenous variables) were introduced in accord with the previous theory, but the mediating variables were introduced based on the past empirical studies. Specifically, regulatory styles are considered as independent variables/causal variables

and L2 motivational possible selves are considered as dependent variables/outcome variables, as Dörnyei (2009) proposed that different regulatory styles were linked to different L2 selves and the L2 selves are possible selves with future orientation (Oxford, 2016). However, the role of identity change in relation to regulatory style and self-identities has not been examined. Thus, it is proposed that regulatory styles (X) on their L2 motivational possible selves (Y) may be mediated by identity changes (M).

A mediated model (MacKinnon, Fairchild, & Fritz, 2007) is a causal model in which the effect of an independent variable (X) on a dependent variable (Y) may be mediated by a third variable (M). Mediation can be full (i.e., X influence Y only through M) or partial (X influences Y and M directly, while M also influences Y). The indirect effect measures the strength of mediation and is computed as the product of path X to M and path M to Y. In other words, mediation analysis is used to understand some relationship by exploring the underlying process by which one variable influences another variable through a mediator variable.

Alternative models involving zero, partial and full mediation were tested for fit and explanatory power. In each specific model, as long as the exogenous variables and the mediating variables have statistically significant and theoretically relevant contributions to the endogenous factor in the model ($p < .05$), they will be kept in this model. In addition, a conjoint structural model was built by combining the three specific models into one model, but this model did not achieve an acceptable model fit.

3.5.3.5 Model impact. The beta path values in Confirmatory factory analysis and structural equation modelling are regression paths, and thus the amount of variance explained ($\boldsymbol{R^2}$) can be identified. Further, squared value ($\boldsymbol{R^2}$) is the amount of the variance in an endogenous variable accounted by the predictor variables or observed variables. This can be converted to an effect size $\boldsymbol{f^2}$ in accordance with Cohen formula (1992), that is $\frac{R^2}{1-R^2}$. The range of $\boldsymbol{f^2}$ values from 0.02 to 0.14 indicates small effect size, and from 0.15 to 0.34 indicates medium effect size, whereas from 0.35 and above suggests large effect size (Cohen, 1992). The calculation of the effect size provides an appropriate measure of the contributions of the exogenous variables in the process of structural model building.

3.6 Research Ethics

This doctoral study, which includes semi-structured interviews and an online survey, was carried out in accord with the University of Auckland Ethical Guidelines. The ethical approval reference numbers for the semi-structured interview and survey study are 011963 and 015462, respectively. Ethical approvals for the semi-structured interview study and for the survey study are shown in Appendix J and Appendix K, respectively.

Chapter 4 Semi-structured Interviews Study

4.1 Introduction

In this semi-structured interview study, English learning motivations and motivational possible selves (i.e., the possible selves that acted as motivational forces to learn) are examined in the retrospective case study of 20 Chinese PhD students learning English in China (i.e., English as a Foreign Language—EFL) and in overseas (i.e., English as a Second Language—ESL) contexts. Also, some possible factors contributing to their success in English learning are identified. This study aims to (1) identity participants' motivations to learn English and motivational possible selves in relation to English learning over a longer timescale, (2) to capture the changes in their motivations and possible selves across different learning contexts (i.e., EFL compared with ESL), and (3) to be expected to produce new information for the survey study in the next chapter. Also, it seeks to provide the answers to Research Question 1 "What are students' (academically successful Chinese learners of English) motivations to learn English in both the Chinese EFL context and the overseas ESL context?" and Research Question 2 "What are students' (academically successful Chinese learners of English) motivational possible selves in both the Chinese EFL context and the overseas ESL context?"

Then, the characteristics of the participants, the procedure for recruiting participants, the questions in this study to which the participants are expected to respond, and the main findings of this study will be presented in the following sections. Data analysis was presented in the methodology chapter.

4.2 Method

4.2.1 Participants

Participants included 20 doctoral students of Chinese citizenship studying at the University of Auckland. They are successful English learners in that they all had to demonstrate a high standard of English proficiency to qualify for university entrance (i.e., IELTS score average ≥ 6.5, with no score below 6.0 or iBT overall ≥ 90 plus written score ≥ 21). The sample included nine women and eleven men drawn from multiple faculties: eight in natural science fields (e.g., engineering, science, and medical and health sciences), ten in social sciences (e.g., education and business) and two in arts and humanities. Twelve participants began to learn English at primary school (nominally aged 6-12), while the remaining eight studied English only from middle school (nominally aged 13-14) onward. One participant had studied abroad at a postgraduate level before enrolling in a PhD programme at this university, and one participant studied abroad for both undergraduate and postgraduate degrees. Two participants completed postgraduate study in both EFL and ESL contexts, and one participant entered directly into a PhD programme without postgraduate study.

4.2.2 Procedures

Participants were recruited using two techniques. First, the majority (*n*=16) were recruited through posting advertisement on the cyber bulletin board of the university's Chinese Postgraduate Student Association. The remaining four participants were recruited via snowball sampling (i.e., they were invited by a participant to take part). Each interview lasted 20-30 minutes. The interviews were recorded by Jing Yu. Eighteen interviews were conducted in Chinese by Jing Yu and then transcribed before being translated into English. Two interviews were carried out in English at the request of the participants. Thereafter, each participant was

offered a copy of the transcript, written in English, for approval and correction before data analysis.

4.2.3 Measures

A semi-structured interview protocol (see Appendix D) was used to elicit descriptions of participants' motivations to learn English and self-identities in relation to English learning across the stages of schooling (i.e., primary, middle, high, undergraduate, postgraduate and doctoral study) from the time they began learning English, through to their current enrolment as a doctoral student.

Participants were firstly asked to fill in a diagram to show the type and strength of their motivations at each schooling stage; they indicated the strength of each motivation against each timeline using five indicators (i.e., very high, high, medium, low, very low). This approach allowed analysis of changes in the nature and significance of motivational profiles across the life-course of their schooling experiences. Then each participant described his/her selves in relation to English across the various stages of schooling as well as indicating the language learning context. Participants were also asked to indicate which self was their dominant motivator for studying English at each schooling stage. Lastly, they reported possible factors contributing to their success in English learning.

4.3 Results

This section consists of the following three parts: the motivations to learn English and motivational possible selves of these successful Chinese learners of English and possible factors contributing to their success in English learning.

4.3.1 Motivations to Learn English of Successful Chinese Learners of English

Motivation results across all schooling stages are reported first, followed by the different frequency of participants' statements across EFL and ESL contexts. Finally, trends of changes in motivation are identified across different stages of schooling.

4.3.1.1 English learning motivations across different schooling stages and contexts.

Firstly, the distribution of the number of participants' motivational codes across different stages of schooling was reported. There were, in total, 12 motivational codes classified to two categories: controlled and autonomous motivations; these codes varied across different stages of schooling (Table 2). Moreover, *oral communication* in different contexts was classified to either controlled or autonomous motivation. For example, *oral communication* is an immediate need (controlled motivation) while studying abroad: "Although English was not a compulsory course while studying abroad, I had to learn English well to communicate with others since I was in an overseas environment" [Case 04]. However, *oral communication* in Chinese schooling appears to refer to the future goals (autonomous motivation): "In high school I hoped to communicate with foreigners in English in the future, which was one of the main reasons for studying English harder" [Case 17].

Additionally, different stages of schooling were characterised by relatively different motivational codes and percentages, which was shown in Table 2. *Passing exams or proficiency tests* was the most frequent motivation in secondary schooling, with 65% in middle school and 80% in high school, respectively. This motivation was due to the high-stakes High School Entrance Examination (HSEE, zhong kao) and National College Entrance Examination (NCEE, gao kao). For example,

> In the year 3 of my middle school English study, an important reason for studying English harder was preparing for HSEE, and in the year 3 of my high school English study, an important reason for studying English harder was preparing for NCEE. [Case 6]

Passing exams or proficiency tests and *finding a good job* were equally the two most frequent motivational codes in undergraduate study. For example,

> When I studied English at my university, the examination was one of the reasons for learning English well since we were required to pass the general English examination of every semester during my first two years of university study. Meanwhile, English study was job-related in my university study: I would find a job in the foreign companies if I studied English well. [Case 03]

It was *interest* that characterised only two study stages of this long-time span; that is, primary school and postgraduate study, with 50% and 47%, respectively. Participants' interest in English in primary school was due to "English was a new language to me full of freshness" (Case 07), while in the postgraduate study they "began to enjoy the beauty of English language" (Case 20).

Oral communication was the most common motivation while studying abroad for 70% of respondents. One student explained as follows:

> When I go abroad, I find it is very hard for me to hear the locals speaking clearly and to communicate with them freely, and in order to communicate with them freely, I do some practices, such as listening to the radio and talking with the locals. [Case 01]

Table 2

The Number of Participants Reporting Motivations Indicating Medium to Very High across Different Stages of Schooling (Percentage in Parentheses)

Motivation	Chinese schooling					Overseas schooling
	PS (*n*=12)	MS (*n*=20)	HS (*n*=20)	U (*n*=19)	PG (*n*=17)	SA (*n*=20)
1. Controlled motivation						
1.1 External regulation						
1.1.1 Immediate demands						
1.1.1.1 Oral communication						14 (70.0)
1.1.1.2 Passing exams (e,g., NCEE) or proficiency tests (e.g., CET, TEM, IELTS, TOEFL)	2 (16.7)	13 (65.0)	16 (80.0)	8 (42.1)	6 (35.3)	1 (5.0)
1.1.1.3 Requirement of school or programmes	1 (8.3)	4 (20.0)	3 (15.0)	2 (10.5)	2 (11.8)	8 (40.0)
1.2 Introjected regulation						
1.2.1 Family/friends' influence	1 (8.3)	2 (10.0)	1 (5.0)	0 (0.0)	0 (0.0)	0 (0.0)
1.2.2 Meeting parents/teachers' expectations	2 (16.7)	2 (10.0)	1 (5.0)	2 (10.5)	1 (5.9)	2 (10.0)
1.2.3 Self-worth	0 (0.0)	2 (10.0)	2 (10.0)	2 (10.5)	0 (0.0)	1 (5.0)
Total (*f*)	5 (41.7)	19 (95.0)	20 (100.0)	11 (57.9)	8 (47.1)	19 (95.0)
2. Autonomous motivation						

Motivation	Chinese schooling					Overseas schooling
	PS (*n*=12)	MS (*n*=20)	HS (*n*=20)	U (*n*=19)	PG (*n*=17)	SA (*n*=20)
2.1 Identified/integrated regulation						
2.1.1 Future goals						
2.1.1.1 Oral communication	0 (0.0)	1 (5.0)	1 (5.0)	5 (26.3)	3 (17.6)	
2.1.1.2 Finding a decent job	0 (0.0)	0 (0.0)	0 (0.0)	8 (42.1)	4 (23.5)	4 (20.0)
2.1.1.3 Professional /academic development	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.3)	5 (29.4)	8 (40.0)
2.1.1.4 Study abroad to pursue degree	0 (0.0)	0 (0.0)	0 (0.0)	6 (31.6)	5 (29.4)	
2.2 Intrinsic motivation						
2.2.1 Interest	6 (50.0)	6 (30.0)	5 (25.0)	7 (36.8)	8 (47.1)	5 (25.0)
2.2.2 Task mastery	0 (0.0)	1 (5.0)	1 (5.0)	2 (10.5)	2 (11.8)	4 (20.0)
Total (*f*)	6 (50.0)	7 (35.0)	6 (30.0)	15 (78.9)	14 (82.4)	12 (60.0)

Note. Total (*f*) refers to the number of participants, not the sum of the participants in the columns; PS = primary school; MS = middle school; HS = high school; U = undergraduate; PG = postgraduate; SA = study abroad; NCEE = National College Entrance Examination; CET = College English Test; TEM = Test for English Major; CET and TEM are standardised national English proficiency tests for university students in the People's Republic of China.

Regarding the frequency of motivational codes across different contexts (Table 3), there were 10 motivational codes with 152 statements in the EFL context, whereas 9 motivational codes with 54 statements in the ESL context. Chinese EFL schooling was characterised somewhat by *passing exams or proficiency tests* (30%), whereas overseas ESL schooling tended

to feature *oral communication* (30%). Generally, the frequency of motivational codes grouped into the autonomous motivation was slightly more than that grouped into the controlled motivation in Chinese EFL context, whereas the frequency of motivational codes grouped into the controlled motivation was slightly more than that grouped into the autonomous motivation in the ESL context. Nevertheless, there were notable differences in the distribution of these codes by language contexts for controlled motivation, with medium effect size (i.e., d=.54); but the effect size for autonomous motivation was slight (i.e., d=.24), suggesting that the two contexts resulted in different controlled motivation patterns.

Table 3

The Frequency of Motivations Indicating Medium to Very High across Different Learning Contexts

Motivation	Schooling	
	Chinese EFL	Overseas ESL
1. Controlled motivation		
1.1 External regulation		
1.1.1 Immediate demands		
1.1.1.1 Oral communication	0	16
1.1.1.2 Passing exams (e.g., NCEE) or proficiency tests (e.g., CET, TEM, IELTS, TOEFL)	45	1
1.1.1.3 Requirement of school or programmes	12	11
1.2 Introjected regulation		
1.2.1 Family/friends' influence	4	0

Motivation	Schooling	
	Chinese EFL	Overseas ESL
1.2.2 Meeting parents/teachers' expectations	8	2
1.2.3 Self-worth	6	1
Total	75	31
2. Autonomous motivation		
2.1 Identified/integrated regulation		
2.1.1 Future goals		
2.1.1.1 Oral communication	10	0
2.1.1.2 Finding a decent job	12	4
2.1.1.3 Professional/academic development	6	8
2.1.1.4 Studying abroad to pursue degree	11	
2.2 Intrinsic motivation		
2.2.1 Interest	32	7
2.2.2 Task mastery	6	4
Total	77	23

Note. EFL = English as a Foreign Language; ESL = English as a Second Language; NCEE = National College Entrance Examination; CET = College English Test; TEM = Test for English Major; CET and TEM are standardised national English proficiency tests for universities students in the People's Republic of China.

4.3.1.2 Trends of changes in motivation across different study stages. The trends of changes in the motivational categories (i.e., controlled and autonomous motivation) across different study stages are shown in Figure 6. Controlled motivation fluctuated across all study stages: starting from the lowest starting point in primary school, then ascending steeply to a peak in high school but descending sharply in postgraduate, and finally almost reaching a peak at the stage of studying abroad. Yet, autonomous motivation did not fluctuate as much as controlled motivation, except in the significant increase from high school to undergraduate study. Specifically, in primary school, students seemed to be interested in English study and were free from exam pressure. For example,

> In my primary school (Year 3), I did not feel study English under great pressure. At that time, I studied English because of my interest, and the interest was high. [Case 02].

Yet, secondary schooling (i.e., middle school and high school) was characterised by controlled motivation, particularly *passing exams*, which could lead to great pressure in English study and then their interest in English learning decreased. For example, Case 2 reported that "In middle school and high school, I learned English in order to pass exams, and my interest was lower than before" and when Case 2 was asked why his motivation changed in secondary schooling his comment was,

> The main reason for the change in my goals was the examination system in China. Because if I wanted to be enrolled in a good university in China, I had to study English well and this learning was under great pressure so there was no interest in English learning.

Likewise, another participant had interest in primary school (e.g., I got access to English learning at Year 5 in my primary school, and at that time I was interested in it), but his interest was lost in secondary schooling due to great pressure of NCEE (*gao kao*). He commented that:

> When I came to middle school and high school, the reason for my learning English was that English as a subject was a requirement for my High School Entrance Examination and

> National College Entrance Examination, and at that time, there was no interest in English. I came from Shandong Province where there is great NCEE pressure, so I had no mood in doing other things and my focus was on the study. [Case 10].

However, in the undergraduate and postgraduate study in China, students' controlled motivation decreased dramatically and autonomous motivation increased sharply. After entry into university, they showed interest in English study and English study seemed to be related to their future (e.g., job). For example, Case 5 firstly reported that his motivation in secondary schooling was exam-oriented (e.g., I had to learn English to pass general English test of each term, HSEE and NCEE. Thus, at that time what I cared about is English examination score). He then commented the change in his motivation "When I studied in university, my goals for studying English have changed", because "I am aware of the importance of studying English, an important instrument for my future life, and "English learning is more related to my future life". Similarly, Case 17 reported the change in her motivation from secondary schooling to undergraduate study (e.g., In university interest in English study has played a dominant role in my English study, different from the previous stages where motivation was dominated by examination) and then she commented that "In university English study was more related to my personal goals". Case 11 also commented that "In my postgraduate study in China, the reason for my English study was my interest in English and the improvement of myself."

Yet, students' controlled motivation went up quickly when studying abroad due to the doctoral study pressure of using English as a medium language in an English-speaking country (e.g., while studying at the University of Auckland, the motivation to learn English is high, and since now English learning should be regarded as a subject, a requirement of PhD. Case 20).

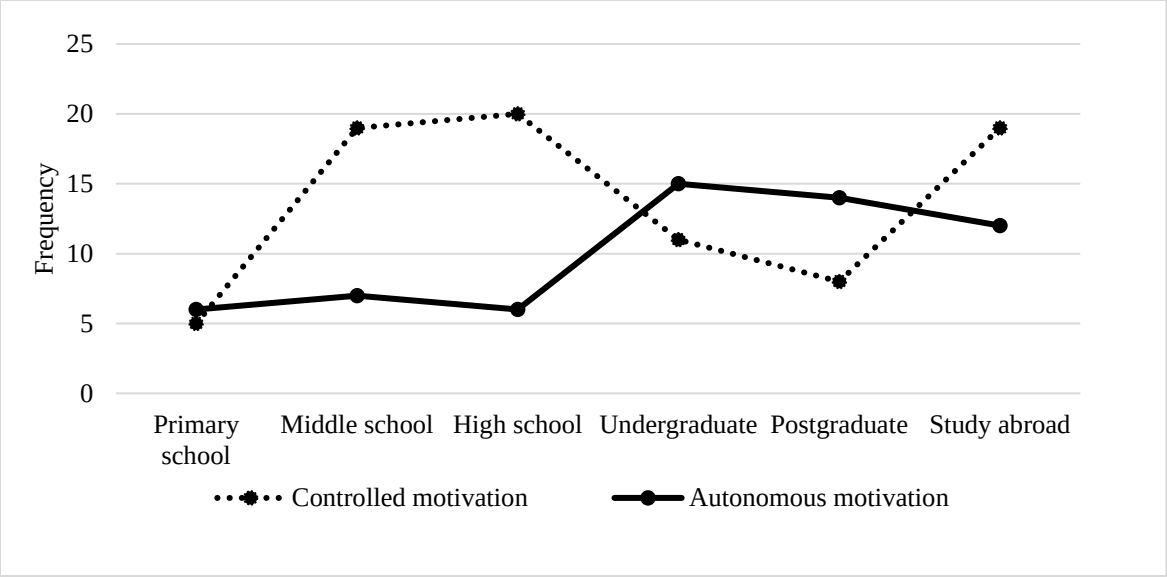

Figure 6. The trends of changes in motivational categories across different study stages.

To illustrate more detailed trends, referring to Figure 7 which displays the trends of changes in motivational regulations across different study stages. Similar to controlled motivation, external regulation showed the most fluctuation, reaching a peak at the stages of high school and studying abroad. That was mostly explained by the importance of English learning to pass National College Entrance Examination in high school. For example,

> In my high school, apart from passing English general tests, the motivation to study English was to pass the National College Entrance Examination, which was very important to me. I had a classmate who was good at learning other subjects such as science, but he failed in the NCEE because of his bad English scores. He took the NCEE three times, and the last time he succeeded. As a result, the motivation to learn English was to pass the NCEE in my high school. [Case 01]

The immediate need of oral communication and meeting the requirement of PhD programme while studying abroad were important motivations. For example,

> When I go abroad, as an overseas doctoral student, writing a PhD thesis to get graduation and daily life communication are the reasons for my English learning and they are very high motivations. [Case 02]

Additionally, the sudden increase in external regulation from primary school to middle school and then to high school was due to enrolment pressure, which was explained by providing the examples of Case 2 and Case 10 in the previous paragraphs (see pp. 99-100). Likewise, integrated/identified regulation experienced fluctuation with the greatest increase occurring from high school to undergraduate, as English learning was more related to the learners' future life. That was explained by providing the examples of Case 5 and Case 17 and Case 11 in the previous paragraphs (see p. 100).

By contrast, introjected regulation did not experience too much fluctuation, with a range of from two to six participants, suggesting that neither meeting parents/teachers' expectations nor maintaining ego is an important motivation for these successful English learners. Intrinsic motivation showed a relatively stable increase trend after high school, indicating that interest was stimulated after being admitted to the university. For example,

> In university, I wanted to pass College English Test 4 & 6 with higher scores, and at that time I could learning English on my own initiative, not forced by others, and I wanted to improve my English and myself, so the past interest in learning English came back. [Case 08]

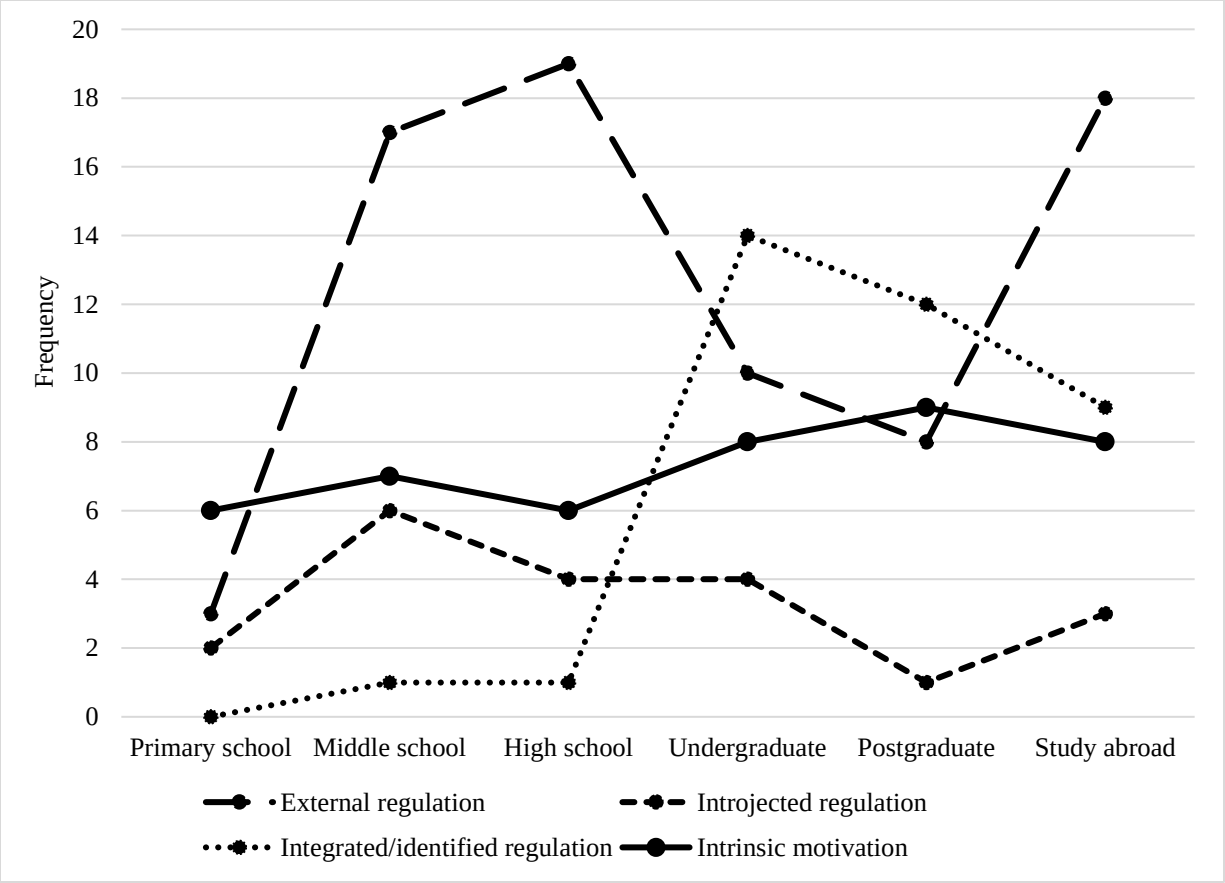

Figure 7. The trends of changes in motivational regulations across different study stages.

4.3.2 L2 Motivational Possible Selves of Successful Chinese Learners of English

Aggregate results across all schooling stages are reported first. The frequency of participants who described multiple or single possible selves is then reported before the intraindividual trajectory of the ideal and dreaded selves is examined across EFL and ESL contexts. Finally, the patterns of changes in the self which acted as the dominant motivator across different learning contexts are presented.

4.3.2.1 Types of motivational possible selves in relation to English learning. Fourteen different motivational codes (Table 4) were aggregated into three selves: seven into dreaded, six into ideal and one into ought-to. Clearly, thirteen codes were reported in the Chinese EFL context (the 14th code— "Fear of bad impact on PhD research"—was not applicable, NA), while eight were reported in the overseas ESL context. Overall, across schooling context, participants expressed more ideal L2 self motivations (*f* = 58) than dreaded L2 self motivations (*f* = 37) or ought-to L2 self motivations (*f* = 4). Specifically, the most dominant ideal L2 self motivations in the EFL context were finding a decent job (*f* = 17) and studying abroad (*f* = 8), and professional/academic development (*f* = 11) and communicating with others fluently (*f* = 6) in the ESL context. While it might be surprising that having a decent job is associated with ideal L2 self, it should be considered that achieving this aspiration is related to the great importance of English learning to job seeking for Chinese students. The most dominant dreaded L2 self motivations in the EFL context were not finding a decent job (*f* = 8) and fear of failing exams (*f* = 5), and fear of not communicating with others fluently (*f* = 6) and fear of failing in study programme (*f* = 5) in the ESL context.

There were notable differences in the distribution of the codes by language contexts. Ideal L2 self occurred more in EFL than ESL (*d*=.94), and dreaded L2 self also occurred more (*d*=.33) in EFL than ESL context. These differences mean that the two contexts stimulated participants to recall quite different motivational possible selves.

Table 4

The Frequency of Motivational Possible Selves across Two Learning Contexts

Code by motivational self	Schooling		Total[a]
	Chinese EFL (*f*)	Overseas ESL (*f*)	(*f*)
I. Ideal L2 self			
1. Find a decent job	**17**	6	23
2. Professional/academic development	3	**11**	14
3. Study abroad	8	NA	8
4. Communicate with others fluently	1	**6**	7
5. Enrol in a good university	3	NA	3
6. Make more foreign friends	1	2	3
II. Ought-to L2 self			
7. Requirement of school or subject	**4**	0	4
III. Dreaded L2 self			
8. Fear of not finding a decent job	**8**	0	8
9. Fear of not communicating fluently	1	**6**	7
10. Fear of failing in study program	1	**5**	6
11. Fear of failing in exams	**5**	1	6
12. Fear of not enrolling in a good university	4	NA	4
13. Fear of not studying abroad for degree	4	NA	4
14. Fear of bad impact on PhD research	NA	2	2

Note. [a]Total (*f*) refers to the frequency of code, not participants; EFL = English as a Foreign Language; ESL = English as a Second Language; NCEE=National College Entrance Examination; CET = College

English Test; TEM=Test for English Major; CET and TEM are standardised national English proficiency tests for universities students in the People's Republic of China; NA= Not applicable in that context. Bold-face numbers indicate over-representations, given marginal frequencies.

As shown in Table 4, some codes in the dreaded self seem to be the negative facet of ideal L2 self, and the number of participants who put the same code in each condition (i.e., 'ideal', or 'dreaded', or 'ideal and dreaded') was inspected (Table 5). Four codes were identified: five participants using them in only 'dreaded' condition in the EFL context and four participants using them in only 'dreaded' condition in the ESL context. *Studying abroad* and *enrolling in a good university* did not have any responses in the ESL context.

Generally, in both contexts, the percentage of using any one code as 'dreaded' ranged from 12.5% to 50%. The percentage of communicating with others in the EFL context and ESL context were 50% and 40%, respectively, whereas for enrolling in a good university and studying abroad these were 25% and 20%, respectively, and finding a decent job was 12.5%.

Table 5

Participants' Motivational Possible Selves Configuration by Context

Code	Chinese schooling (EFL)				Overseas schooling (ESL)			
	Total (*n*)	Ideal only (*n*)	Dreaded only (*n*)	Dual (*n*)	Total (*n*)	Ideal only (*n*)	Dreaded only (*n*)	Dual (*n*)
Find a decent job	16	8	2	6	6	6	0	0
Study abroad	10	6	2	2				

Code	Chinese schooling (EFL)				Overseas schooling (ESL)			
	Total (*n*)	Ideal only (*n*)	Dreaded only (*n*)	Dual (*n*)	Total (*n*)	Ideal only (*n*)	Dreaded only (*n*)	Dual (*n*)
Communicate with others fluently	2	1	1	0	10	4	4	2
Enrol in a good university	4	0	1	3				

Note. EFL = English as a foreign language; ESL = English as a second language; Dual = both ideal and dreaded self.

4.3.2.2 Change in possible selves across different learning contexts. Only two participants reported four comments (i.e., 4%) on the ought-to L2 self in relation to English study. For example, Case 12 only had an ought-to L2 self in relation to English study (i.e., "As an English major student in the university, I should learn it well to meet the requirement of this subject" Case 12), no ideal L2 self or dreaded across the two contexts.

The percentage of the ideal and dreaded L2 self statements in each case across different language learning contexts is presented in Table 6. Five participants (25%) did not report any percentage change in terms of the ideal or dreaded L2 self statements in the two contexts. Among them, two participants did not have the dreaded L2 self across the two contexts because they had no fear in English study. For example,

> During the whole process of my English study, I have had no fear and it is the good situation that pushes me to improve my English. My focus is on the improvement, not getting rid of fear. [Case 4]

Another two participants had more ideal than dreaded L2 self statements consistently across EFL and ESL contexts. For example, Case 11 had four ideal self statements in relation to personal future success, that is:

- Undergraduate study, “If I could study English well, it would bring me success, since English is my major, such as career success”,
- Postgraduate study in a Chinese university, “It could be very helpful for my research, or research achievement”, and
- Overseas doctoral study, “I could get my PhD degree” and “become a successful bilingual learner”.

By contrast, this person had two dreaded self statements related to the impact of lower English competence on a future job or fear of failure in the PhD program. This person reported:

- Undergraduate study, “I also feared that my pronunciation and listening were not good enough, which would impact my future job”, and
- Overseas doctoral study, “I fear that if I could not study English well, you could not write an acceptable English dissertation to meet PhD graduation requirement”.

In contrast, 10 participants (50%) indicated a change in their motivational possible selves across the different contexts. Thus, the change in possible self across language contexts was large (d=0.61; i.e., 50% of participants had change versus 25% without change). One participant (Case 3) with both the ideal and dreaded L2 self in the Chinese EFL context had only the ideal L2 self in the ESL context, whereas one participant (Case 13) with only the dreaded L2 self changed to have both the ideal and dreaded. Two participants (Case 6 and Case 19) with previous co-existence of the ideal and dreaded L2 self did not have any self in relation to English study (e.g., “I am focused on doing PhD research, not any thought of studying English” Case 6),

but one (Case 14) began to have that self while studying abroad. Five participants (Case 5, 7, 10, 16, 17) with only the ideal L2 self began to have both the ideal and dreaded L2 self upon going abroad to study. Their dreaded L2 self was focused on the fear that their English proficiency would impact on their PhD study; a legitimate concern given the high stakes and high linguistic proficiency associated with a doctoral degree. This change in the nature of causation in dreaded L2 self can be seen in Case 7, who indicated that at undergraduate university study, "If I could study English well, I could go abroad and could have some advantages in finding a job. No fear of not studying it well". However, at the overseas doctoral study, this same participant reported:

> I could study English well, it would be very helpful for my career success; if we could not do that, our PhD research work could not be presented to others due to the bad language ability.

Table 6

The Number and Distribution of Ideal and Dreaded Possible Selves for Each Participant across Learning Contexts

	Chinese schooling (EFL)			Overseas schooling (ESL)		
Case	Total (*n*)	Ideal (%)	Dreaded (%)	Total (*n*)	Ideal (%)	Dreaded (%)
1	7	14.3	85.7	3	33.3	66.7
2	11	45.5	54.5	2	50.0	50.0
3	7	57.1	42.9	1	100.0	0.0
4	1	100.0	0.0	2	100.0	0.0
5	4	100.0	0.0	5	40.0	60.0
6	5	60.0	40.0	0	0.0	0.0
7	2	100.0	0.0	5	20.0	80.0

	Chinese schooling (EFL)			Overseas schooling (ESL)		
Case	Total (*n*)	Ideal (%)	Dreaded (%)	Total (*n*)	Ideal (%)	Dreaded (%)
8	5	80.0	20.0	4	75.0	25.0
9	4	75.0	25.0	4	75.0	25.0
10	3	100.0	0.0	2	50.0	50.0
11	3	66.7	33.3	3	66.7	33.3
12	0	0.0	0.0	0	0.0	0.0
13	2	0.0	100.0	4	50.0	50.0
14	0	0.0	0.0	3	66.7	33.3
15	4	50.0	50.0	3	33.3	66.7
16	4	100.0	0.0	3	66.7	33.3
17	2	100.0	0.0	2	50.0	50.0
18	3	66.7	33.3	5	40.0	60.0
19	2	50.0	50.0	0	0.0	0.0
20	2	100.0	0.0	2	100.0	0.0
Sum	71	1265.3	534.7	53	1016.7	683.3

Note. EFL = English as a foreign Language; ESL = English as a second Language.

4.3.2.3 Self as a dominant motivator across different study stages. Seven participants (i.e., Case 1, 2, 8, 9, 11, 15, 18) had both ideal and dreaded L2 self in Table 6. Thus, it is interesting to examine factors and contexts that might influence which identity was dominant. Patterns of change in the dominant self associated with learning in an EFL versus an ESL context are shown in Figure 8, which shows that half of the students were completely stable in their dominant self motivator, with nine consistently the ideal and one stable as dreaded.

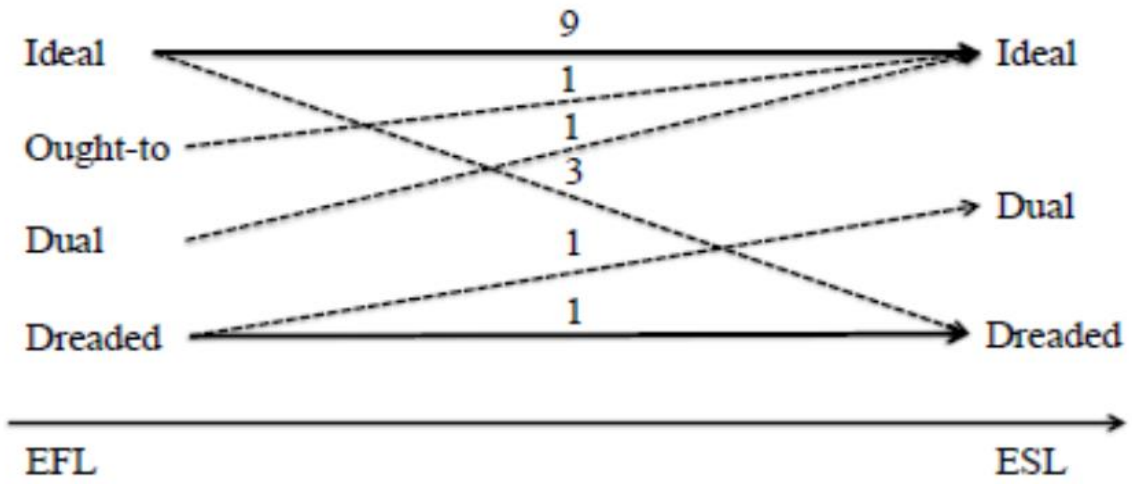

Figure 8. Patterns of changes in dominant self while moving from an EFL to an ESL context.

Case 20 provides an example of perceiving the stable ideal L2 self as the dominant motivator. She reported that "All of the three stages of the study had no fear. It was always the good situation that pushed me to study English well". She indicated specifically as follows for each stage:

- Undergraduate study, "If I could study English well, I could become a university English teacher after my graduation",
- Postgraduate study, "If I could study English well, I could get higher scores in my courses and could apply for PhD study programme", and

- Overseas doctoral study, “If I could study English well, I could write a good thesis and could have good oral English”.

In sharp contrast, Case 1 provides an example of a stable dreaded L2 self as the dominant motivator. He reported that “Overall, it was the fear that pushed me to study English harder in the past Chinese schoolings”, and that “Now in my overseas doctoral study, it was still the fear that pushed me to study English harder” in that “I fear that if my English were poor, while going back to China, others would laugh at me”. Specifically, he noted

- Middle school, “It was full of fear of not studying English well”, because “if I could not study English well, English scores could affect my overall scores of High School Entrance Examination seriously”, and as a result, “I would not be enrolled in a good high school”,
- Undergraduate study, “I would have lost my face if I had not passed my College English Test Band 4 but other students have passed.” and “When I was looking for a job I found that whether I had passed CET 4 or not was still important, so fear still existed”, and
- Postgraduate study which he wanted to study abroad, “IELTS fee is very expensive so I studied English very hard, fearing failing in the test and wasting too much money on taking many times of IELTS test”.

Among those who changed in their dominant self motivator, two gained an ideal self, three became dreaded, and one became dual (i.e., both ideal and dreaded). The change patterns of four participants (Case 6, 12, 14, 19) were treated as missing for the following reasons. Case 12 only reported the ought-to L2 self. Case 14 began to think of the L2 self only in the ESL context due to the pressures of PhD study:

> Now, in the overseas doctoral study, I began to imagine that if I could not learn English well, I could not write qualified PhD dissertation to graduation; if I could study English well, I could have more confidence in my study and be willing to communicate with others.

For the remaining two participants, their L2 self disappeared once they were in the doctoral study. As Case 19 put it, "my focus is on my subject, so I did not have too much thought of what would happen if I study English well or not".

In addition, Case 7 provides a good example of gaining the ideal L2 self as the dominant motivator.

- Before undergraduate study she had only ought-to L2 self, "I just think that I should study English well, as it was a compulsory course, no thought of studying English well or not",
- Undergraduate study and onward, she gained the ideal L2 self, "if I could study English well, I could get the opportunity to go abroad as an exchange student funded by Chinese government",
- Postgraduate study, "If I could learn English well, I could publish some English papers in international professional periodicals", and
- Overseas doctoral study she had dreaded L2 self and this fear seems to be more related to PhD study program:

> Now in my doctoral study, I fear that if I could not learn English well, I could fail in the four courses of my provisional year, and my supervisors could not be satisfied with my writing assignment, I could not publish good papers, and could not write a good PhD thesis. Also, I am worried about my communication skill.

Despite these variations in motivation and identity, it would seem that the ideal L2 self was still her dominant motivator:

> Now, these two imagined situations (good side and bad side) exist simultaneously, but it is still the good situation that pushes me to study harder. If I could study English well, my overseas life could run smoothly.

The reason for the change in participants toward a dreaded L2 self as the dominant motivator was related to others' higher expectations of their English proficiency. For example, Case 10 commented that his dreaded L2 self started with his overseas doctoral study:

> Now in my overseas doctoral study, it is also more job opportunities. Yet, now I have some fear of not studying English well because people in China will have higher expectations on your English proficiency, since you are an overseas PhD student. They will expect me to be very fluent in my English while coming back to China, as I am an overseas PhD. It is the fear that pushes me to study harder.

Participants' dominant L2 motivational possible selves by schooling context are shown in Table 7. After excluding one participant with only the ought-to L2 self, two comparisons of the distribution of ideal and dreaded L2 self were conducted. Within Chinese K-12 schooling (i.e., primary school, middle school and high school) and across university-level study regardless of location (i.e., undergraduate, postgraduate and doctoral study), there was a notable difference in favour of ideal L2 self-identity (d=1.41 and d=12.64, respectively). This suggests, in light of the small data set, that for those who successfully entered the doctoral study in an English-speaking country, their motivation for ideal L2 self was consistently greater.

Table 7

Dominant L2 Motivational Possible Self by Schooling Context

	Chinese schooling (EFL)						Overseas (ESL)
Self type	Total[a] (*n*)	Primary (*n*=12)	Middle (*n*=20)	High (*n*=20)	Undergrad. (*n*=19)	Postgrad. (*n*=17)	(*n*=20)
Ideal	16	1	3	5	13	12	12
Dreaded	6	1	1	2	2	1	4
Ought-to	2	1	1	1	1	0	0
Dual	3				2		1
Non-existent	0	9	15	12	1	4	3

Note. [a]Total (*n*) refers to the number of participants who perceived this self type as their dominant motivator; EFL = English as a foreign language; ESL = English as a second language; Dual = both ideal and dreaded. Non-existent means that participants did not have the L2 self at that study stage.

4.3.3 Factors Contributing to the Success in English Learning

The frequency of the factors contributing to success in English learning was reported firstly. There were, in total, ten successful factors classified to two dimensions of locus of control: internal locus and external locus (Table 8). Internal locus seemed to focus on: (I.1) interest (*f*=9), (I.2) effective English learning methods (*f*=8), (I.3) diligence (*f*=7) and (I.4) to study abroad (*f*=6). Specifically, nine participants reported their interest in English, for example, "I like English, especially now (referring to study at the University of Auckland) I like it very much (Case11)", indicating that studying in an ESL context seems to stimulate more interest in

English. Eight participants mentioned effective English learning methods, and half of them reported that reading and listening many authentic English learning materials are helpful to their success, as these materials are real or Standard English. For example,

> I like watching American TV shows, and these authentic listening materials are totally different from College English Test 4 & 6 listening tests and close to real life English. Thus, I find that they are much more useful than the tests in China, particularly while studying abroad. [Case 06]

Seven participants reported their diligence in English study, for example, "I study English hard spending a lot of time in learning English, indeed (Case 10)." Six participants expressed their wish to study abroad and this wish motivated them to study English harder, for example, "I intended to study abroad, so I studied English harder. (Case 05)."

By contrast, external locus codes were less than internal locus codes including: (III.8) good English learning atmosphere (*f*=3), (III.9) meeting the occupation need of being an English teacher (*f*=3) and (III.10) meeting the requirement of school (*f*=3). Three participants commented that good English learning atmosphere contributed to their success, for example, "My university is a very good university in China having a stronger learning atmosphere, which leads to my English success (Case 14)." Three participants reported that meeting the occupation need of being an English teacher contributes to their success, for example, "As an English teacher, I must learn English well knowing much more knowledge in terms of English than my students and explaining the questions asked by your students clearly (Case 13)."

Likewise, three participants believed that meeting the requirement of school was one of the factors contributing to their success in English, signifying that the external pressure could push students to study English harder. For example,

> The main pushing force for my English study was the entrance examination pressure. English subject is the requirement for High School Entrance Examination, National College Entrance Examination, and Postgraduate Entrance Examination. Hence, I had to learn it well memorizing the English vocabulary and grammar rules and doing a lot of English practice tests. [Case 02]

The total number of the internal locus frequency was much larger than that of the external locus, suggesting that it is the internal factors that mainly contributes to the success in English learning. However, it is noteworthy that the number of external locus frequency (*f*=9) accounts for 18% in the total number of frequency (*f*=50) and 7 participants reported external factors, indicating that external factors cannot be overlooked in examining the successful factors of successful Chinese learners of English.

Table 8

The Frequency of Factors Contributing to Success in English Learning

Factor	Frequency
I. Internal locus	
1. Interest	9
2. Effective English learning methods	8
3. Diligence	7
4. To study abroad	6
5. Perseverance	4
6. Talent	4
7. Self-confidence	3
Total	41
II. External locus	
8. Good English learning atmosphere	3

Factor	Frequency
9. Meeting the occupation need of being an English teacher	3
10. Meeting the requirement of school	3
Total	9

4.4 Summary

This study identified 12 different motivational codes which were classified as controlled and autonomous motivations for learning English. Medium effect size differences (d=.54) were seen in the frequency of controlled motivation between the two contexts. Analysis of trends of changes in motivations across different study stages indicated that external regulation belonging to controlled motivation experienced the most fluctuation, and this fluctuation was attributed to enrolment pressure in China as well as the immediate demand of oral communication and the high-stakes PhD study while studying abroad.

This study revealed that both the 'ideal L2 self' and the 'dreaded L2 self' were important sources of motivation in their English learning. Analysis of intraindividual change over time indicated that ten participants experienced a significant shift in their 'possible selves' as they moved from an EFL to an ESL context. The difference in the distribution of ideal and dreaded L2 self in K-12 schooling and university stages was large and statistically significant, in favour of the ideal self, indicating that successful Chinese learners appear driven more by ideal than dreaded self.

This study identified that it is the internal factors that mainly contribute to the success in English learning among these successful Chinese learners of English. Yet, the external factors

mainly deriving from external pressure (e.g., meeting the requirement of school and occupation need) cannot be overlooked in examining their success in English learning.

Overall, the results of the motivations and possible selves of successful Chinese learners of English seem to be consistent with the finding in relation to the factors contributing to their success in English learning. That is, successful Chinese learners of English have both autonomous and controlled motivations and both ideal and dreaded L2 selves. Both internal locus of control (e.g., interest in English) and external locus of control (e.g., meeting the requirements of school) contribute to their success in learning English. That suggests that the internalised English learning behaviour and internal factors could play an important role in the development of their success in English learning. Yet, the externalised English learning behaviour (e.g., controlled motivation and dreaded L2 self) and the external factors cannot be overlooked in examining the development of their success in English learning.

Yet, this study relied on just 20 retrospective case studies of successful Chinese learners of English and so the generalisability of the results would be weak. Hence, a large-scale survey study of Chinese ESL learners has been conducted to further evaluate whether L2 motivational possible selves include dreaded, ideal and ought-to selves, which will be discussed in the next chapter. Moreover, this study generated new items, four motivational codes in the identified/integrated regulation and seven motivational self codes in the dreaded L2 self, which will be selectively added to the measures of the survey study in the next chapter and the selection criteria will also be discussed in it.

Chapter 5 Survey Study

5.1 Introduction

This study employs a large-scale cross-sectional survey to identify the relations among regulatory styles, identity changes and L2 motivational possible selves of Chinese students undertaking tertiary study in New Zealand. This study aims to (1) construct and validate a motivational self-identity measure that situates within the frameworks of regulatory styles, identity changes and L2 motivational possible selves in the hope of providing a useful instrument for researchers who are interested in identifying the relations among these three frameworks, (2) test the three specific models (i.e., ideal L2 model, ought-to L2 self model and dreaded L2 self model) that are situated within the three frameworks in the hope of generating insights into the L2 learning development of Chinese international students undertaking tertiary study in an ESL context, and (3) further evaluate whether L2 motivational possible selves include dreaded, ideal and ought-to selves. Also, this study seeks to provide answers to Research Question 3 "What are the structural relations among L2 regulatory styles, identity changes and L2 motivational possible selves?"

5.2 Method

5.2.1 Participants

Participants were 443 Chinese university students in New Zealand. As detailed in Table 9, there were nearly twice as many female participants as males; just over three-quarters were in their twenties; half were undergraduates; and although eight different faculties were represented, about one-third were enrolled in business and economics and nearly a quarter in science.

Table 9

Demographic Characteristics of Participants

Characteristic	*n*	%
Gender		
Male	170	38.4
Female	273	61.6
Age		
19 or younger	43	9.7
20-24	222	50.1
25-29	124	28.0
30-34	42	9.5
35-39	7	1.6
40-44	4	0.9
45-49	1	0.2
Study program		
Bachelor	224	50.6
Master	79	17.8
PhD	124	28.0
Other	16	3.6
Study faculty		
Arts	51	11.5
Business and Economics	134	30.2
Education	38	8.6

Characteristic	*n*	%
Engineering	65	14.7
Law	5	1.1
Medical and Health Sciences	19	4.3
Science	105	23.7
Other	26	5.9

5.2.2 Procedures

An online Qualtrics survey was administered in September 2015 in accordance with protocols approved by the University of Auckland Human Participants Ethics Committee (#HPEC 015462). A snowball technique was used to recruit eligible participants by disseminating invitations through multiple methods. Students known to the researcher were invited to participate in the study via e-mail, including a link to the web-based survey as well as a QR code. Invitations or advertisements were posted on the bulletin boards of each faculty within the University of Auckland. Invitations were posted on the Facebook pages of the New Zealand Chinese Students' Association (NZCSA) and various Chinese Students' Associations at all universities in New Zealand. Finally, more than 800 printed advertisements were handed out to friends, classmates, schoolmates and roommates. Invitees were informed that it would take approximately 15-20 minutes to complete the survey and that participation was completely anonymous and voluntary. Invitees were given approximately one month to complete this survey, during which the bulletin board and Facebook advertisements were updated every week.

5.2.3 Measures

The measures in this study included three instruments (L2 regulatory styles, identity changes and L2 motivational possible selves) and social responsibility scale and author developed scales, which was shown in the tables below. Two principles guided the selection of the instruments: (1) the previous research has substantiated the reliability or validity of the questionnaire items (Mertens, 2010), and (2) these adopted questionnaires will be useful for testing three specific structural models (i.e., ideal L2 self model, ought-to L2 self model and dreaded L2 self model) that are situated within the three frameworks. Since there are many scales for each construct set previously mentioned, the basic criteria for the scale selection were (1) the scales that we select can help us achieve the research aim, that is, identification of the relations among L2 learners' motivations, identity changes and L2 motivational possible selves, (2) the selected scales should be consistent with the main findings of the semi-structured interviews study in Chapter 4 (Yu, Brown, & Stephens, 2014;Yu, Brown, & Stephens, 2018), and (3) these selected scales would make sense in the ESL context rather than in the EFL context.

5.2.3.1 L2 regulatory styles. For L2 regulatory styles (Noels et al., 2000), the scales of intrinsic knowledge, intrinsic accomplishment, identified regulation, introjected regulation and external regulation were selected. The scales for amotivation and intrinsic stimulation were not included because they did not appear applicable based on the results of semi-structured interviews study (see Chapter 4). Specifically, amotivation does not apply to the target population of this survey study; that is, Chinese international students are using English to complete their study programmes, as they are supposed to be highly motivated or motivated. Also, the wording of the questionnaire items belonging to the intrinsic stimulation is unclear, for example "for the 'high' I feel when hearing foreign languages spoken" (p. 63). The meaning and examples of the selected scales were detailed in Table 10.

Table 10

The Scales and Meanings of L2 Regulatory Styles

Scale	Meaning
L2 regulatory styles	
Intrinsic knowledge	Learning English from one's interest in obtaining more knowledge. (e.g., I learn English for the pleasure that I experience in knowing more about the literature of the second language group.)
Intrinsic accomplishment	Learning English to acquire a sense of self-achievement while overcoming English learning difficulties. (e.g., I learn English for the satisfaction that I feel when I am in the process of accomplishing the difficult exercises in the second language.)

Scale	Meaning
Identified regulation	Learning English because it is personally important. (e.g., I learn English because I choose to be the kind of person who can speak a second language.)
Introjected regulation	Learning English to avoid guilt or anxiety or enhance self-esteem. (e.g., I learn English because I would feel ashamed if I couldn't speak to my friends from the second language community in their native tongue.)
External regulation	Learning English to get an external demand or reward. (e.g., I learn English because I have the impression that it is expected of me.)

5.2.3.2 Identity changes. As for the scale selection for the identity changes questionnaire (Gao et al., 2005), all scales were selected except the self-confidence change scale. That scale is not part of or extension of the previous identity changes theory, which refers to "subtractive bilingualism" and "additive bilingualism" (Lambert, 1974, p. 25) and "productive bilingualism" (Gao, 1994, p. 63), whereas the other five selected scales originate from the aforementioned identity changes theory. The meaning and examples of the selected scales were detailed in Table 11.

Table 11

The Scales and Meanings of Identity Changes

Scale	Meaning
Identity changes	

Scale	Meaning
Productive identity change	Positive reinforcement of Chinese and English due to proficiency in both languages. (e.g., With the improvement of my English proficiency, I can better appreciate the subtleties in Chinese.)
Additive identity change	Coexistence of two sets of languages and values. (e.g., I can easily switch between Chinese and English according to situational needs.)
Subtractive identity change	Replacement of Chinese by English. (e.g., After learning English, I have developed repugnance to some Chinese conventions.)
Split identity change	Identity crisis from the struggle between the two languages and cultures. (e.g., I feel a painful split when I switch between English and Chinese behavioral pattern.)
Zero change	No identity change. (e.g., I have not felt any change in myself after learning English.)

5.2.3.3 L2 motivational possible selves. Regarding L2 motivational possible selves (Taguchi et al., 2009), four scales, that is, ideal L2 self, ought-to L2 self, instrumentality-promotion and instrumentality-prevention, were selected. These four scales are useful for measuring the possible selves of L2 learners, consistent with the semi-structured interviews findings (Yu, et al., 2014; 2018); they can be applicable to the target population of this survey study. By contrast, the other five scales (i.e., family influence, attitudes to learning English, cultural interest, attitudes to L2 community and integrativeness) in Taguchi and his colleagues' survey (Taguchi et al., 2009) are not useful for measuring L2 learners' possible selves in the ESL context, and the questionnaire items in these six scales have not shown in the findings of L2 learners' motivational possible selves in the semi-structured interviews study (Yu, et al., 2018). The meaning and examples of the selected scales were shown in Table 12.

Table 12

The Scales and Meaning of L2 Motivational Possible Selves

Scale	Meaning
L2 motivational possible selves	
Ideal L2 self	Learning English so as to become a good English learner. (e.g., I can imagine myself living abroad and having a discussion in English.)
Ought-to L2 self	Learning English to meet requirements or others' expectations. (e.g., Learning English is necessary because people surrounding me expect me to do so.)

Scale	Meaning
Instrumentality promotion	Learning English to approach a desired end-state. (e.g., Studying English can be important to me because I think I'll need it for further studies.)
Instrumentality prevention	Learning English to avoid a dreaded end-state. (e.g., I have to study English because I do not want to fail my course.)

5.2.3.4 Social responsibility. The meaning of social responsibility is learning English to fulfil social expectations, which originally developed from Gao and her colleagues' study (Gao et al., 2007, p. 141). The items belonging to this scale include: only when I have a good command of English can I live up to the expectations of my parents; only when I have a good command of English can I contribute to China's prosperity well; and I learn English in order to let the world know more about China. The Cronbach's Alpha index of this scale was provided (α= .65) in Jiang's (2011) study of the motivational possible selves of Chinese learners of English.

5.2.3.5 Author developed scales. The scales of 'dreaded L2 self' and 'integrated regulation' were added to this composite questionnaire. Specifically, for the 'dreaded L2 self', three out of seven categories grouped to 'dreaded L2 self' in the previous semi-structured interviews study (Yu et al., 2018) were added to this scale due to relatively higher frequencies (i.e., > 2; see Table 4 in Chapter 4) and their applicability to the target population; the other two original comments from that interview study, that is, " I worry that if I did not speak English well, teacher or classmates would laugh at me (Case 01) " and "I worry that if I did not speak English well, I would not fit into the Western society (Case 08) "were also added to this subscale, as it might be a potential fear in relation to L2 learning for the target population.

'Integrated regulation' scale was created in this survey study for two purposes: (1) to compensate for the absence of the integrated regulation scale in the L2 regulatory style questionnaire (Noels et al., 2000), and (2) to attest whether identified regulation and integrated regulation is indistinguishable, as "Factor analysis on experimental forms of the EME (Echelle de Motivation en Education) revealed that integrated regulation did not distinguish itself from identified regulation" (Vallerand et al., 1992, p. 1006) and then Noels and her colleagues (Noels,

Clément, & Pelletier, 2001) argued that it was hard to differentiate integrated regulation from identified regulation. This scale developed from the semi-structured interviews study findings included three items. That is, it originated from participants' original comments: (1) "While studying abroad, I learn English well to integrate into the Western societies (Case 15)" ; (2) "Another reason for my English learning was to for career development while studying at the University of Auckland (Case 12);" and (3) "While studying at the University of Auckland, I think that one motivation to learn English well is to prepare myself for the future academic success such as doing a presentation in the academic conference (Case 16)." The items in the author developed scales were shown in Table 13.

Table 13

Author Developed Scales and Items

Scale	Item
Dreaded L2 self	I worry that if I did not study English well, I would not find a good job.
	I worry that if I did not speak English well, I would not be able to communicate with my future employer and colleagues.
	I worry that if I did not study English well, I would not meet the academic requirements of the university.
	I worry that if I did not speak English well, others (e.g. teachers or peer students) would laugh at me.
	I worry that if I did not speak English well, I would not fit into the Western society.
Integrated regulation	I learn English well to integrate into the Western societies.

Scale	Item
	I learn English well to promote my professional development.
	I learn English well to promote my academic success.

5.2.3.6 Instrument validity. This composite questionnaire entitled Motivation English Learning Survey (see Appendix E) with 71 items was administered to ten participants to check the content-related instrument validity.

Participants. Ten Chinese students (undergraduates and postgraduates) enrolled at the University of Auckland were recruited. They came from multiple faculties across the University of Auckland so that subject will have no impact on participants' understanding of the questionnaire instruction, questionnaire items and rating scales. There were four undergraduates and six postgraduates with two PhD students; four participants were in natural science fields (e.g., engineering, science, medical and health sciences), six being in social science (e.g., education and business); and six participants were females and four males.

Procedures. This semi-structured interview study was administered in August 2015, in accordance with the protocol approved by the University of Auckland Human Participants Ethics Committee (#HPEC 015462). The convenience sampling, through posting advertisements on the online bulletin board of Chinese Students' Associations at the University of Auckland, was used to recruit these participants.

At the start of each semi-structured interview, participants were asked to read the questionnaire instructions and then mark the questionnaire items that were not clear to them, and they explained the reasons for their confusion. Next, items revision (e.g., changed the confused

words or gave Chinese translation of the confused words) was conducted, based on clarifying participants' confusion, and then asked the participants to read the items again to confirm if these items were clear to them. The observation of participants' behaviour of encountering the difficulty in reading the survey is consistent with their comments on the items confusion. Finally, participants were invited to discuss their preference to the two sets of rating scales, that is, six-point positively-packed scale (Lam & Klockars, 1982) and seven-point Likert scale. Additionally, participants were invited to give more comments on this instrument. Each interview lasted 30-40 minutes. All interviews were conducted in Chinese by Jing Yu, and then transcribed before being translated into English.

Result 1 (Item revision). After checking the instrument validity, this questionnaire with 71 items was reduced to 62 items, which was available in Appendix F. Participants' comments on the questionnaire items focused on the following three aspects: (1) to give Chinese translations of some unfamiliar English vocabulary, (2) to remove the redundant items, and (3) to delete the questionnaire items that were unclear and meaningless in the ESL context.

The last two aspects seem to focus on the L2 motivational possible selves measure. Nine questions were removed from twenty-five questions in the original survey (Taguchi et al., 2009). Seven out of nine questions (i.e., q12, q13, q16, q17, q18, q19 and q20 in Appendix I) removed due to redundancy and ambiguity in this instrument validity, were also removed in Taguchi and colleagues' final structural equation modelling report. However, the rest two items (i.e., q14 and q15 in Appendix I) existing in that modelling report were deleted, as more than two participants responded that these two items were redundant and made no sense in the ESL context. By contrast, another two items (i.e., q6 and q9 in Appendix I) kept in this instrument validity study were trimmed in Taguchi's (2009) model. These two items were commonly reported by the

participants from the semi-structured interviews study (Yu, et al., 2018). Several item revision examples were shown in Table 14. Adapted versions of these questionnaire items in three frameworks (i.e., L2 regulatory styles, identity changes and L2 motivational possible selves), compared with original versions, were detailed in Appendix G, H and I, respectively.

Table 14

Examples of Item Revision

Original version	Adapted version
1. I learn English in order to get a more prestigious job in the future.	1. (a) I learn English in order to get a more prestigious （受人尊敬的） job in the future.
2. I can easily switch between Chinese and English according to situational needs.	2. (a) I can easily switch （转换） between Chinese and English according to situational needs.
3. I study English because close friends of mine think it is important.	Deleted due to redundancy with the item "Learning English is necessary because people surrounding me expect me to do so."
4. Studying English is important to me because, if I don't have knowledge of English, I'll be considered a weak student.	Deleted due to the ambiguous meaning of "knowledge" and "weak student".
5. Studying English is important to me because other people will respect me more if I have a knowledge of English.	Deleted due to the ambiguous meaning of "a knowledge".

Original version	Adapted version
6. I imagine myself as someone who is able to speak English.	Deleted due to making no sense in the ESL context.

Result 2 (Scale preference). Seven out of ten participants clearly reported that they preferred seven-point Likert scale, as they commented that seven-point Likert scale provided the respondents with more options, for example, 'neutral' option. They also commented that six-point positive rating scale (Lam & Klockars, 1982) with four positive options and two negative options would imply that respondents should choose positive options. By contrast, two participants reported that they preferred six-point positive rating scale in that they did not like the 'neutral' option in the seven-point Likert scale. Only one participant claimed that she would like the seven-point Likert scale if 'neutral' option were removed. Finally, sixty-two questionnaire items with the seven-point Likert scale was administered to the four hundred and forty-three participants of the online survey.

5.2.4 Analysis

Following a two-step process (Anderson & Gerbing, 1988), each construct was first evaluated for measurement properties using confirmatory factor analysis. Then, structural equation modelling techniques were used to identify the relations of L2 regulatory styles, identity changes and L2 motivational possible selves to each other. R software (R version 3.2.5) with maximum likelihood estimation was used to do all the statistical analyses, as ordinal response scales with five or more options (e.g., seven-point Likert scale) can be treated as if they were continuous (Finney & DiStefano, 2006). The minimum sample size for using the maximum

likelihood estimation is more than 200 (Boomsma, 1987), and the sample size in this study has met this criterion. The detailed analytic procedures were discussed in Chapter 3.

5.3 Results

This section presented the results of reliability and validation of the measurement models (i.e., L2 regulatory styles, identity changes and L2 motivational possible selves) and the relations among the 13 factors across the three frameworks.

5.3.1 Reliability and Validation of Measurement Models

5.3.1.1 Descriptive analysis. Descriptive analysis (see Appendix L) showed that variable responses were approximately normally distributed, with no missing data. Kim (2013) suggests that when the sample size is larger than 300, the absolute values of skewness and kurtosis without considering Z values (i.e., dividing the skew values by their standard errors) are sufficient to indicate normality. All variables were within normal range (i.e., <|3.00|) for skew (Cramer & Howitt, 2004; Kline, 2005) and (i.e., <|7.00|) for kurtosis (Bryne, 2013).

5.3.1.2 L2 regulatory styles. Confirmatory factor analysis was used to evaluate five different models. Model 1 was the original five inter-related factors of L2 regulatory styles (L2RS). Model 1A was identical except for removing item q26 because of its high modification indices (52.06). Model 2 was a six-factor model including the integrated regulation factor, while Model 2A replicated Model 1A by removing item q26. Model 2B, instead, moved item q26 into the new integrated regulation factor.

The model fit indices (Table 15) of Model 1 were acceptable, but Model 1A without item q26 was marginally better. Model 2 with the additional integrated regulation factor of three items developed in the semi-structured interviews study had slightly worse fit. However, the deletion

of q26 (Model 2A) improved fit and the incorporation of q26 into the integrated regulation factor (Model 2B) achieved the best fit.

Although both AIC and fit indices supported selecting Model 1A over Model 2B, Model 2B with 6 factors and 18 items is more informative than Model 1A which only has 5 factors and 14 items. Importantly, Model 2B by including the integrated regulation is consistent with Ryan and Deci's (2000) idea that there are four separate types of regulation (i.e., integrated, identified, introjected, and external) in extrinsic motivation. More importantly, four items in the integrated regulation in Model 2B are consistent with the latest conceptualisation of integrated regulation, which "entails that one brings a value or regulation into congruence with the other aspects of one's self–with one's basic psychological needs and with one's other identifications" (Ryan & Deci, 2017, p.188). In contrast, integrated regulation is non-existent in Model 1A. As a result, Model 2B was chosen to be the best model to rely upon.

Table 15

L2RS Model Fit Indices

Model	Fit Indices								
	χ^2	*df*	χ^2/df	*p* value	CFI	gamma	RMSEA	SRMR	AIC
Five factors									
Model 1	312.41	80	3.91	.05	.93	.94	.08	.05	21811.89
Model 1A	227.29	67	3.39	.07	.95	.95	.07	.05	20565.78
Six factors									
Model 2	453.39	120	3.78	.05	.92	.92	.08	.06	25569.32
Model 2A	332.36	104	3.20	.07	.94	.94	.07	.05	24330.27

Model	Fit Indices								
	χ^2	*df*	χ^2/df	*p* value	CFI	gamma	RMSEA	SRMR	AIC
Model 2B*	373.81	120	3.12	.08	.94	.94	.07	.05	25489.74

Note. CFI=comparative fit index; RMSEA=root mean square error of approximation; SRMR= standardized root mean residual; AIC=Akaike information criterion; *=preferred model.

In addition, as detailed in Table 16, the factors and scales of descriptive statistics of Model 2B (L2RS revised adaptive model) showed that this originally developed factor (i.e., integrated regulation factor) was the most agreed regulatory style among all the styles, indicating the importance of this style for this sample who is undertaking tertiary study in the ESL context. This factor had a moderate correlation with other factors, varying from *r*=0.42 to *r*= 0.72. The integrated regulation was not strongly correlated with the intrinsic accomplishment and the identified regulation; however, it had a higher correlation with the intrinsic knowledge and the external regulation than other regulations, suggesting that the behavior of integrated regulation would be more complicated with self-autonomy and external control as well. The items and loadings in this Model 2B were shown in Appendix M.

Table 16

L2 Regulatory Styles Revised Adaptive Model Factors and Scales Descriptive Statistics

L2RS revised adaptive model factor	Inter-correlations							
	1	2	3	4	5	6	*M*	*SD*
1. Intrinsic knowledge	(.81)						5.46	1.17
2. Intrinsic accomplishment	**.88**	(.80)					4.89	1.55
3. Integrated regulation	**.72**	.54	(.80)				5.83	1.24
4. Identified regulation	**.75**	**.70**	.62	(.84)			5.03	1.50

L2RS revised adaptive model factor	Inter-correlations							
	1	2	3	4	5	6	*M*	*SD*
5. Introjected regulation	.50	**.71**	.42	.59	(.76)		3.88	1.75
6. External regulation	.34	.36	.63	.42	.61	(.71)	4.83	1.68

Note. Coefficient alpha on diagonal in parentheses; Coefficients **≥** .70 are in boldface.

5.3.1.3 Identity changes. Confirmatory factor analysis was used to evaluate two different models. Model 1 was the original five inter-related factors of L2 identity changes (L2IC). Model 1A was identical except for removing four items (q60, q44, q47 and q51) because of the very low loading of q60 (λ=.16) and the high modification indices of other three items (69.78, 39.50 and 35.30, respectively). The model fit indices (Table 17) of Model 1 were not acceptable, but Model 1A without those four items achieved a much better fit.

Table 17

L2 IC Model Fit Indices

Model	Fit Indices								
	χ^2	*df*	χ^2/df	*p* value	CFI	gamma	RMSEA	SRMR	AIC
Model 1	701.96	160	4.39	.04	.79	.89	.09	.09	31444.95
Model 1A*	249.36	94	2.65	.10	.91	.96	.06	.07	25452.61

Note. CFI=comparative fit index; RMSEA=root mean square error of approximation; SRMR= standardized root mean residual; AIC=Akaike information criterion; *=preferred model.

Additionally, as detailed in Table 18, the factors and scales of descriptive statistics of Model 1A (L2IC original trimmed model) showed that the most positively agreed scales were additive change and productive change. By contrast, split change and subtractive change were

rejected. Neither agreed nor disagreed scales were zero change, showing that these L2 learners were not sure about their identity change. The inter-factor correlations varied from weak to moderate, except high inter-correlations between positive change and additive change, and between subtractive change and split change, indicating that L2 learners with positive identity change had additive change and L2 learners with subtractive change had split change. By contrast, zero change had a very weak association with other scales, since the definition of this scale was in opposition to that of other scales describing the changes. The items and loadings in this Model 1A were shown in Appendix N.

Table 18

L2 Identity Changes Original Trimmed Model Factors and Scales Descriptive Statistics

L2IC original trimmed model factor	Inter-correlations						
	1	2	3	4	5	*M*	*SD*
1. Productive identity change	(.64)					5.02	1.46
2. Additive identity change	**.88**	(.55)				5.22	1.49
3. Subtractive identity change	.56	.50	(.58)			3.48	1.55
4. Split identity change	.52	.34	**.86**	(.73)		3.67	1.67
5. Zero change	-.10	.14	.15	.16	(.68)	4.12	1.80

Note. Coefficient alpha on diagonal in parentheses; Coefficients ≥ .70 are in boldface.

5.3.1.4 L2 motivational possible selves. Confirmatory factor analysis was used to evaluate five different models. Model 1 was the original four inter-related factors of L2 motivational possible selves (L2MS). Model 1A was identical except for removing four items (q20, q19, q22 and q13) due to their high modification indices (64.91, 50.83, 37.42 and 34.79, respectively). However, while adding the two factors (i.e., dreaded L2 self and social responsibility) to Model 1A, the confirmatory factor analysis revealed that this model was inadmissible due to very high inter-factor correlations between instrumentality promotion and dreaded L2 self (i.e., r=1.0), indicating that instrumentality promotion and dreaded L2 self can be merged and suggesting this fear is related more to students' future personal development.

Because the dreaded L2 self was one of the three components in the possible selves theory (Markus & Nurius, 1986), paralleling with the ideal L2 self and ought-to L2 self, Model 2 was merging all items of the instrumentality promotion to the dreaded L2 self factor and Model 2A was merging the instrumentality promotion as a subordinator to the dreaded L2 self factor. Model 2B just replicated Model 2A by removing q17 due to its very high modification indices (128.72).

The model fit indices (Table 19) of Model 1 were not acceptable, but Model 1A without four items (q20, q19, q22, and q13) was improved greatly to achieve a good model fit. The model fit indices of Model 2 and Model 2A were almost the same, as the ΔAIC difference for the two models with the same number of items (19) was less than 2. Neither Model 2 with the item merging nor Model 2A with the factor merging can achieve an acceptable model fit. However, the deletion of q17 (Model 2B) improved the fit greatly so that it can achieve an acceptable model fit. Although Model 1A with four factors and 12 items had a better model fit than Model 2B with five main factors and 18 items, Model 1A was got by trimming 4 items of Model 1 and

Model 2B was got by trimming only one item of Model 2. More items and factor were kept in Model 2B, and thus it was more informative than the Model 1A. In addition, Model 2B was consistent with the semi-structured interviews finding that dreaded L2 self is an independent self (Yu, Brown, & Stephens, 2018). However, this dreaded L2 self seems to be overlooked in Model 1A. As a result, Model 2B was chosen to be the best model to report.

Table 19

L2MS Model Fit Indices

Model	Fit Indices								
	χ^2	*df*	χ^2/df	*p* value	CFI	gamma	RMSEA	SRMR	AIC
Four factors									
Model 1	489.26	98	4.99	.03	.89	.90	.10	.07	22956.89
Model 1A	131.69	48	2.74	.10	.96	.97	.06	.04	17007.87
Five factors									
Model 2	590.75	142	4.16	.06	.89	.91	.08	.07	27532.39
Model 2A	590.68	141	4.19	.04	.89	.90	.09	.07	27534.31
Model 2B*	449.94	124	3.63	.06	.92	.92	.08	.07	25874.08

Note. CFI=comparative fit index; RMSEA=root mean square error of approximation; SRMR= standardized root mean residual; AIC=Akaike information criterion; *=preferred model.

Additionally, as detailed in Table 20, the factors and scales of descriptive statistics of Model 2B (L2MS revised trimmed model) showed that the most endorsed scales were dreaded L2 self, ideal L2 self and instrumentality prevention, indicating that the three scales can be perceived as important motivators for L2 study. The means of the ought-to L2 self and social responsibility scales located in the “neither agree nor disagree” option, suggesting that the two

scales were not important motivators for successful Chinese learners of English. The inter-factor correlations ranged from weak to moderate, except relatively strong correlation between dreaded L2 self and ideal L2 self, indicated the L2 learners with fear of not learning L2 well would also dream of learning L2 well. The items and loadings in this Model 2B were shown in Appendix O.

Table 20

L2 Motivational Possible Selves Revised Trimmed Model Factors and Scales Descriptive Statistics

L2MS revised trimmed model factor	Inter-correlations						
	1	2	3	4	5	*M*	*SD*
1. Ideal L2 self	(.81)					5.55	1.12
2. Ought-to L2 self	.41	(.75)				4.42	1.56
3. Dreaded L2 self	**.73**	.63	(.71)			5.70	1.14
4. Instrumentality prevention	.31	.67	.66	(.86)		5.15	1.56
5. Social responsibility	.43	.61	.48	.43	(.77)	4.22	1.59

Note. Coefficient alpha on diagonal in parentheses; Coefficients ≥ .70 are in boldface.

5.3.1.5 L2 regulatory styles versus L2 motivational possible selves. L2 regulatory styles (L2RS) revised adaptive model (see Appendix M) and L2 motivational possible selves (L2MS) revised trimmed model (see Appendix O) were produced based on the same sample, who was L2 learners using English to undertake tertiary study in an ESL context. Each model had 18 items and L2RS revised adaptive model had six main factors and L2MS revised trimmed model had five main factors and one sub-factor. Each model achieved the acceptable model fit indices.

However, it is noteworthy that every model fit index of L2RS revised adaptive model (χ^2=373.81; *df*=120; χ^2/df=3.12 (*p*=0.08); CFI=0.94; gamma=0.94; RMSEA=0.07; SRMR=0.05; AIC= 25489.74) was better that that of L2MS revised trimmed model (χ^2=449.94; *df*=124; χ^2/df =3.63 (*p*=0.06); CFI=0.92; gamma=0.92; RMSEA=0.08; SRMR=0.07; AIC=25784.08). Also, the ΔAIC score difference in the two models was 294 points and AIC weight of the first model was 1. All results demonstrated that L2RS revised adaptive model is much closer to the sample data than L2MS revised trimmed model.

5.3.2 Relations among 13 Factors

In order to identify the relations among L2 regulatory styles, identity changes and L2 motivational possible selves, thirteen factors with forty-four items were evaluated with three different approaches. The first approach was to test the fit of a fully inter-correlated structural model (Model 1). The second was the implementation of a bifactor model (Model 2) and finally, Model 3 was a structural equation model designed to identify relations among constructs.

5.3.2.1 Model 1. Inter-correlated factors. Confirmatory factor analysis was run for a 13-factor inter-correlated model to describe the properties of the unique factors only (Table 21). This model fit had marginal to acceptable fit (χ^2= 1939.68; df=824; χ^2/df =2.35 (p=.13); CFI=.88; gamma=.88; RMSEA=.06; SRMR =.06). Several factors had reasonably strong inter-correlations (i.e., *r*>.70) across the different frameworks. Surprisingly, the most noticeable and highest coefficient was the correlation between integrated self-regulatory style and dreaded L2 self, indicating that the fear of becoming a second language learner with lower English proficiency might be related to future personal development. However, dreaded L2 self was also highly correlated with external regulation, suggesting that this dread in relation to English study would partly come from external pressure such as society. Intrinsic accomplishment was not highly correlated with any other factor outside the regulatory styles construct; by contrast, intrinsic knowledge had a strong correlation with productive and additive identity changes. Ideal L2 self had a strong correlation with integrated regulation, and ought-to L2 self had a strong correlation with introjected and external regulations.

Table 21

Inter-correlations of Factors

Factor	1	2	3	4	5	6	7	8	9	10	11	12
1. INK	--											
2. INA	**.86*****	--										
3. INR	**.74*****	*.53****	--									
4. IDR	**.75*****	*.69****	*.64****	--								
5. INT	*.50****	**.71*****	*.42****	*.59****	--							
6. EXT	*.34****	*.36****	*.63****	*.42****	*.60****	--						
7. IDE	*.69****	*.52****	**.83*****	*.58****	*.40****	*.55****	--					
8. OUG	*.33****	*.48****	*.48****	*.40****	**.78*****	**.77*****	*.42****	--				
9. DRE	*.54****	*.50****	**.93*****	*.52****	*.50****	**.80*****	**.75*****	*.65****	--			
10. PRO	**.71*****	*.64****	*.53****	*.53****	*.53****	*.36****	*.57****	*.43****	*.43****	--		
11. ADD	**.72*****	*.53****	*.64****	*.54****	*.45****	*.32****	**.70*****	*.36****	*.47****	**.87*****	--	
12. SUB	.19**	.28***	.05	.22**	*.54****	.22**	.12	*.43****	.12	*.56****	*.43****	--
13. SPL	.23***	*.36****	.04	.21***	*.48****	.17**	.11*	*.39****	.10	*.52****	.28***	**.86*****

Note. INK = intrinsic knowledge; INA = intrinsic accomplishment; INR = integrated regulation; IDR= identified regulation; INT = introjected regulation; EXT= external regulation; IDE =ideal L2 self; OUT= ought-to L2 self; DRE = dreaded L2 self; PRO = productive identity change; ADD = additive identity change; SUB = subtractive identity change; SPL = split identity change. Coefficients > .70 are in boldface, and coefficients > .30 are in italics. *** =$p < .001$, **=$p < .01$, *=$p < .05$.

5.3.2.2 Model 2. Bifactor analysis. The measure in this study is a composite questionnaire, including 13 factors (multifactors) and these factors coming from different frameworks, L2 regulatory styles, identity changes and L2 possible selves. Many factors across different frameworks were correlated more than trivially, indicating that they have some overlapping content, and thus bifactor modelling was applied to this study. That is, the marginal model fit and the inter-correlation patterns suggested that the introduction of a general bifactor was warranted.

Compared with 13 unique inter-related factor analysis, the benefit of using bifactor analysis is that both general factor and specific factor are used to explain students' motivation and identity. The bifactor model in which a general factor (i.e., development of successful L2 learning) in conjunction with the 13 unique inter-correlated factors explained responses had better fit with several indices indicating acceptable to good fit (χ^2=1627.84, *df*=780; χ^2/df=2.09 (p=.15); CFI= .91; gamma= .92; RMSEA= .05; SRMR= .05). The loadings for 44 variables in the bifactor condition were shown in Table 22.

It was noticed that variables originating from framework of the identity changes (*M*=.16; *SD*=.17) had much lower loadings with the general factor than those from frameworks of the L2 motivational possible selves (*M*=.53; *SD*=.13) and regulatory styles (*M*=.45; *SD*=.17), suggesting that the development of second language learning of successful Chinese learners of English in the ESL context is more related to their L2 motivational possible selves and regulatory styles than to identity changes. Moreover, two variables originating from the integrated regulation had a strong loading (i.e., λ>.70) with the general factor and all variables from this factor (i.e., from λ>.56 to λ>.78) had a relatively higher loading with the general factor than those from other factors, indicating that English learning behaviour of successful L2 learners seems to be consistent with their own needs and values.

Likewise, one variable coming from the dreaded L2 self had a strong loading with the general factor and all variables coming from that factor ((i.e., from λ>.52 to λ>.71) also had relatively higher loadings, suggesting that dread concerning the future colours the general opinions of Chinese English learners about learning the language. This may be consistent with the strong power of shame in Chinese socialisation.

Table 22

Variable Loadings for Specific Factors and General Factor

Variable	Loading to specific factors	Loading to general factor
Intrinsic knowledge		
Q27	*.58*	*.48*
Q30	*.56*	*.56*
Q35	*.58*	*.51*
Intrinsic accomplishment		
Q28	*.53*	*.48*
Q31	**.76**	*.28*
Q32	**.72**	*.39*
Integrated regulation		
Q26	.25	*.66*
Q39	*.39*	*.56*
Q41	-.06	**.78**
Q42	.25	**.73**
Identified regulation		
Q34	**.76**	*.35*
Q40	**.73**	*.48*

Variable	Loading to specific factors	Loading to general factor
Introjected regulation		
Q24	**.72**	.26
Q29	*.55*	*.37*
Q33	**.75**	.16
External regulation		
Q1	*.39*	.18
Q6	**.71**	*.40*
Q10	**.78**	*.42*
Productive identity change		
Q46	*.60*	.22
Q48	*.42*	*.34*
Q56	*.61*	*.33*
Additive identity change		
Q43	-.43	.27
Q50	-.65	.12
Q52	-.23	*.48*
Q53	-.30	.23
Subtractive identity change		
Q54	*.61*	.02
Q55	*.68*	.00
Split identity change		
Q45	*.38*	.15
Q57	*.59*	.05
Q58	**.81**	-.10

Variable	Loading to specific factors	Loading to general factor
Q59	**.82**	-.02
Ideal L2 self		
Q4	*.69*	*.50*
Q8	*.60*	*.57*
Q16	*.40*	*.41*
Q18	*.36*	*.63*
Ought-to L2 self		
Q5	*.69*	.25
Q9	**.74**	*.35*
Dreaded L2 self		
Q2	*.48*	*.52*
Q11	*.53*	*.58*
Q14	*.39*	*.57*
Q15	.12	**.71**
Q21	.18	*.64*
Q23	*.39*	*.63*
Q25	.13	*.56*

Note. Loadings> .70 are in boldface, and loadings> .30 are in italics.

5.3.2.3 Model 3. Structural equation model. The structural equation path model proposed that regulatory style factor would predict identity change and L2 self. Both direct and indirect paths through identity change from regulatory style were tested. Three separate structural equation models (i.e., Model 3A ideal L2 structural model, Model 3B ought-to L2 structural model and Model 3C dreaded L2 structural model) were run to account for each L2 self separately. After appropriate trimming, these had the acceptable fit and so are reported. By contrast, a structural equation model that simultaneously accounted for all six regulatory styles, all four identity changes, and all three L2 motivational possible selves as dependent constructs did not achieve acceptable fit (i.e., χ^2=2177.90, *df*=858; χ^2/*df*=2.54 (*p* = .11); CFI= .86; gamma= .88; RMSEA= .06; SRMR= .07) and thus it is not reported.

Model 3A. In the ideal L2 structural model, positive and additive identity changes, being considered as adaptive identity change, were expected to be the mediating constructs between the first four factors of regulatory styles in Ryan and Deci's (2000) self-determination continuum (e.g., intrinsic knowledge, intrinsic accomplishment, integrated regulation and identified regulation), which belong to autonomous motivation (i.e., enacting the activity because of one's own choice and volition; Deci & Ryan, 2000), and the ideal L2 self. This model was proposed based on the previous studies reporting that the internal motivation (e.g., autonomous motivation) can lead to the positive and additive identity changes (Gao et al., 2007; Xu & Gao, 2014) and that integrated and identified regulations might be linked to the ideal L2 self at conceptual level (Dörnyei, 2009). In addition, Oxford (2016) stated that L2 possible selves are the imagined selves with the future orientation, and thus L2 possible selves should be considered as the outcome variables in the ideal L2 self structural model. That is, the behavior of English learning stemming from one's autonomous motive (e.g., intrinsic knowledge, intrinsic accomplishment, integrated regulation and identified regulation) would lead to the positive and additive identity changes (i.e., adaptive

identity change), and these identity changes would attribute to the individuals' ideal imagination of themselves (e.g., aspire to become good L2 learners). Hence, ideal L2 self was chosen as the final dependent construct in this model. Both direct and mediated paths to the ideal L2 self from the four regulatory factors were tested. Then, after removing statistically non-significant paths (i.e., $p > .05$), all remaining paths were significant at $p < .01$. This model (see Figure 9) had acceptable fit with several indices indicating good fit (χ^2 =611.72, *df* = 217; χ^2/df = 2.82 (p = .09); CFI= .91; gamma= .94; RMSEA= .06; SRMR= .05).

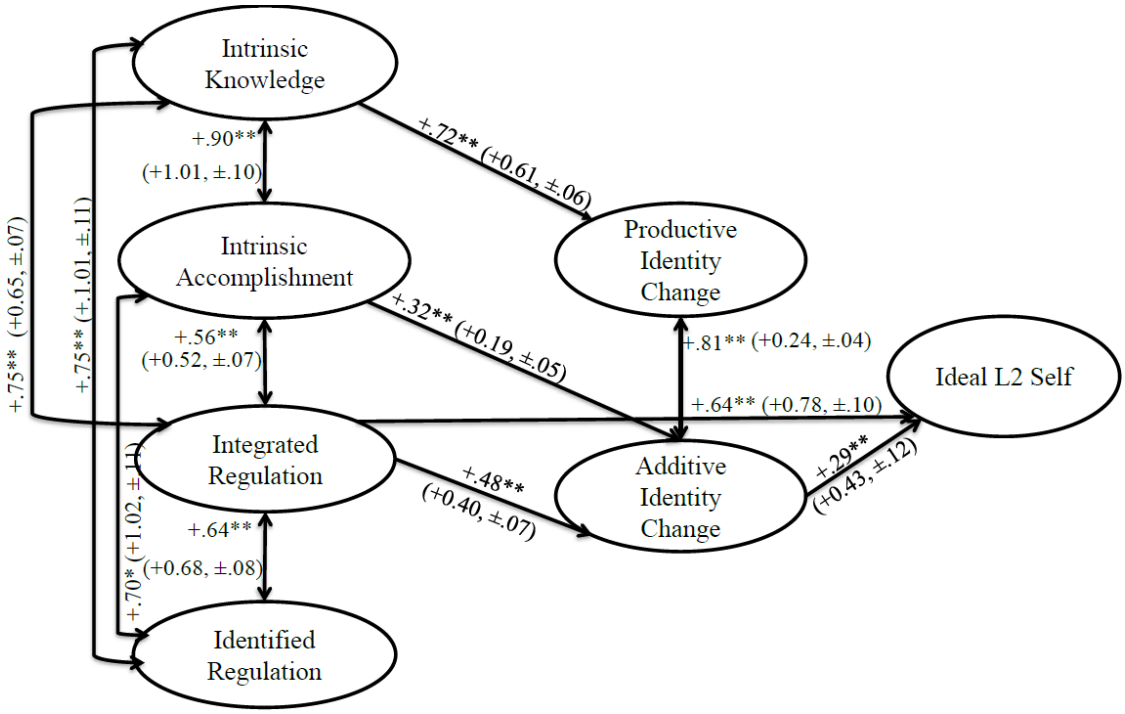

Figure 9. Model 3A structural relations among autonomous motivation, adaptive identity change and ideal L2 self.

Standardised regression weights shown. ** $p < .01$. Unstandardised regression weights and standard errors are shown in the parentheses.

As shown in Figure 9, integrated regulation had a positive and substantial contribution to both ideal L2 self and additive identity change, but additive identity change had a small contribution to ideal L2 self; that is, integrated regulation had a substantial (positive) effect

on ideal L2 self and had a small but significant indirect effect (i.e., +.14) on ideal L2 self through additive identity change. Likewise, intrinsic accomplishment had a small but significant indirect effect (i.e., +.09) on ideal L2 self through additive identity change. All results above suggested that the L2 learners with intrinsic accomplishment and integrated regulation aspired to become good L2 learners and experienced an additive identity change (i.e., the coexistence of two languages and values) in the process of becoming good L2 learners.

Intrinsic knowledge had a positive and relatively large contribution to productive identity change, indicating that L2 learners with the motive of learning English to get more knowledge went through a productive identity change. By contrast, although identified regulation had a relatively strong correlation with the other three factors in autonomous motivation, it did not have a significant contribution to either adaptive identity change or ideal L2 self. This indicated that identified regulation, the less autonomous motivation, was not helpful for producing adaptive identity change or developing an ideal L2 self.

The model of two direct predictors on ideal L2 self explained 74% of the variance, and the effect size of this variance, that is, the f^2values calculated by the Cohen (1992) formula ($\frac{R^2}{1-R^2}$) is 1.21 indicative of the large effect size. The one predictor of productive identity change explained 52% of the variance and the two predictors of additive identity changes explained 51% of the variance, and the effect size of both are *d*= 0.37 and *d*= 0.35, respectively, indicating large effect size (Cohen, 1992).

Model 3B. In the ought-to L2 self structural model, split identity change was assumed as mediating construct between introjected and external regulations, which belong to controlled motivation (i.e., enacting the activity due to the external pressure; Deci & Ryan, 2000), and ought-to L2 self, as past studies reported that external regulation leads to split

identity change (Gao et al., 2007; Xu & Gao, 2014) and external regulation appears to be linked to ought-to L2 self at conceptual level (Dörnyei, 2009). That is, the behavior of English learning coming from controlled motive (i.e., introject and external regulations) would lead to the identity crisis and this crisis might lead to their imagined possible self of meeting significant others' expectations or external requirement. However, the path between split identity change to ought to L2 self was statistically non-significant and thus was removed.

Thus, this specified model showed that the factors of introjected and external regulations (i.e., controlled motivation) had direct (positive) effects on the ought-to L2 self and also direct (positive/negative) effects on the split identity change. After removing statistically non-significant paths (i.e., p >.05), all remaining paths were at least significant at p <.05 level. This model (see Figure 10) had good fit (χ^2 =119.37, df = 48; χ^2/df = 2.49 (p= .11); CFI= .96; gamma= .97; RMSEA= .06; SRMR= .05).

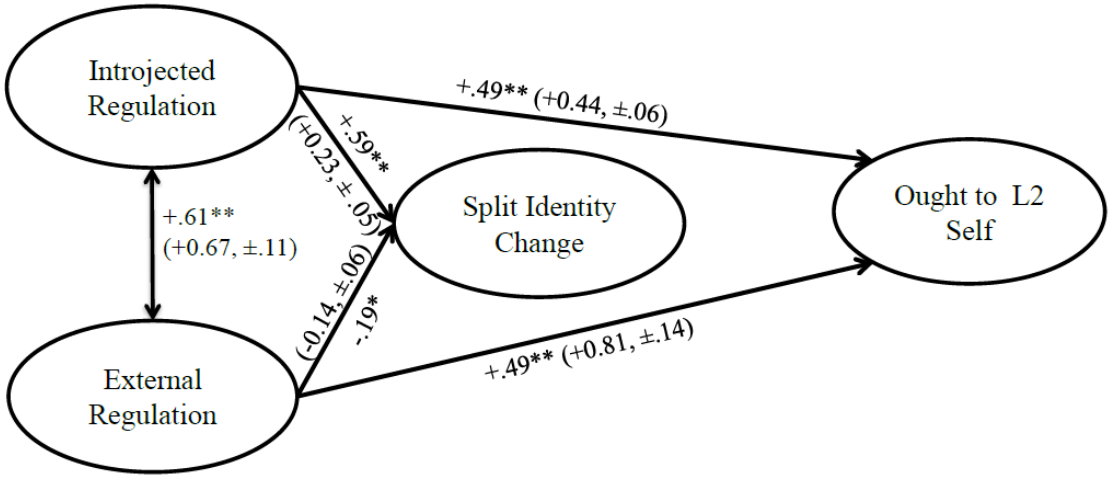

Figure 10. Model 3B structural relations among factors of controlled motivation and split identity change and ought-to L2 self.
Standardised regression weights shown. ** p < .01, * p < .05. Unstandardised regression weights and standard errors are shown in the parentheses.

As detailed in Figure 10, introjected regulation had a positive and substantial contribution to both split identity change and ought-to L2 self, indicating that this controlled motivation made L2 learners confused about their identity and it also contributed to forming the self of meeting others' expectations in relation to the L2 study. Nonetheless, external regulation had a small but negative contribution to split identity change, suggesting that the behavior of learning English due to external reward and punishment reduced the split identity change; it had the same positive and substantial contribution to ought-to L2 self as introjected regulation, showing that this external regulation contributed to the development of L2 ought-to self, that is, to meet others' expectations.

In addition, the model of two direct predictors on ought-to L2 self explained 77% of the variance, whereas the two predictors of split identity change explained 24% of the variance. The effect size of the former variance, that is, the f^2values calculated by the Cohen (1992) formula ($\frac{R^2}{1-R^2}$) is 1.46 indicative of the large effect size, whereas that of the latter variance is only 0.06 indicative of small effect size (Cohen, 1992).

Model 3C. In the dreaded L2 structural model, subtractive identity change was assumed as the mediating construct between the factors of introjected and external regulations (i.e., controlled motivation) and dreaded L2 self, as past studies reported that the external regulation leads to the subtractive identity change (Gao et al., 2007; Xu & Gao, 2014) and external regulation appears to incur L2 learners' fear and pressure in relation to English study (Yu, et al., 2018; Yu, Stephens, Brown, & Hamilton, 2015). That is, the behavior of English learning coming from the introjected and external regulations (i.e., controlled motivation) would lead to the subtractive identity change and this identity change would contribute to their imagined dreaded self. However, the path between the subtractive identity change to the dreaded L2 self was statistically non-significant and thus was removed.

Then, after removing statistically non-significant paths (i.e., p >.05), all remaining paths were significant at p < .01 level. This model (see Figure 11) had acceptable fit (χ^2 =278.88, df = 86; χ^2/df = 3.24 (p = .07); CFI= .93; gamma= .95; RMSEA= .07; SRMR= .06).

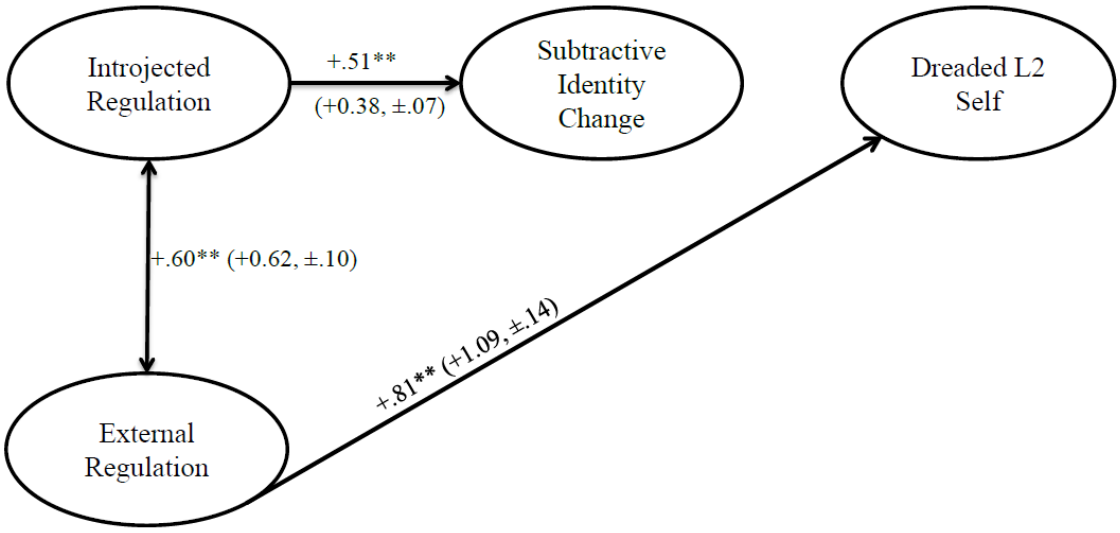

Figure 11. Model 3C structural relations among factors of controlled motivation and subtractive identity change and dreaded L2 self.
Standardised regression weights shown. ** p < .01. Unstandardised regression weights and standard errors are shown in the parentheses.

Although there was moderate correlation (i.e., r = .60 at p < .01 significant level) between introjected regulation and external regulation, introjected regulation had a positive and substantial contribution (i.e., +.51 at p <.01 significant level) to subtractive identity change, which demonstrated that the behavior of learning L2 for ego enhancement or for avoiding guilt contributed to producing the subtractive identity change. External regulation, however, had a positive and large contribution (i.e., +.81 at p <.01 significant level) to dreaded L2 self, which showed that the behavior of learning L2 language for external reward and punishment contributed to the formation of self who feared of being a bad L2 learner.

In addition, the model of one direct predictor on dreaded L2 self explained 65% of the variance, whereas one predictor of subtractive identity change explained 26% of the variance.

The effect size of the former variance, that is, the f^2 values calculated by the Cohen (1992) formula ($\frac{R^2}{1-R^2}$) is 0.73 indicative of the large effect size, whereas that of the latter variance is only 0.07 indicative of small effect size (Cohen, 1992).

5.4 Summary

This survey study constructed and validated a composite questionnaire situated within the frameworks of L2 regulatory styles, identity changes and L2 motivational possible selves. Consistent with the previous semi-structured interviews study (Yu et al., 2018), this study identified that successful Chinese learners of English in the ESL context have three independent selves: ideal L2 self, ought-to L2 self and dreaded L2 self. Also, this study examined the structural relations among the three frameworks previously mentioned: (1) integrated regulation had a substantial (positive) effect on ideal L2 self and had a small but significant indirect effect on ideal L2 self through additive identity change, (2) introjected regulation had a positive and substantial contribution to both split identity change and ought-to L2 self, and (3) external regulation had a positive and large contribution to dreaded L2 self.

Chapter 6 Discussion and Conclusion

6.1 Introduction

This chapter discusses three research findings: (1) students' motivations to learn English in both Chinese EFL context and overseas ESL context, (2) students' motivational possible selves (i.e., the possible selves that acted as motivational forces to learn) in both Chinese EFL context and overseas ESL context, and (3) structural relations among L2 regulatory styles, identity changes and L2 motivational possible selves; specifically, results from the tests of three distinct structural models (i.e., ideal L2 self model, ought-to L2 self model and dreaded L2 self model). This chapter ends with a discussion of implications, significance, and limitations of this doctoral dissertation as well as possible directions for future research.

6.2 Summary of Main Findings

This section summarises the main findings of students' motivations to learn English and their motivational possible selves across different learning contexts and study stages, and sums up the findings of three structural models that tested the relations among L2 regulatory styles, identity changes and L2 motivational possible selves.

6.2.1 Motivations to Learn English

Study 1 of this doctoral project employed a mixed-method research design to identify different regulatory styles related to learning English in both domestic schooling and overseas education among a purposive sample, that is, successful learners of English from China. Results from thematic analyses of interview data revealed that in the Chinese schooling context—where English is a foreign language (EFL)—11 motivational codes emerged, which were classified into four regulatory styles (i.e., intrinsic motivation, integrated/identified regulation, introjected regulation, and external regulation). Further analyses of these data indicated that students' motivation was dominated by the external regulation (e.g., passing

exams or proficiency tests) in the Chinese EFL context. This finding—that English language learning in China is largely regulated externally—is not surprising given the social emphasis and educational importance of passing English examinations. In contrast, a small percentage (6% to 30%) of participants' motivation for learning English in the Chinese EFL context were coded as introjected regulation—despite being a closely related form of controlled motivation.

Interestingly, as the Chinese students moved through the school system their motivations moved. In primary school, students' motivation was largely autonomous (e.g., interest), perhaps because the language was fresh. Nevertheless, by secondary schooling, in accordance with the external regulation, students' motivation was primarily characterised as controlled (e.g., passing exams) because of the powerful pressure and high-stakes public examinations. However, upon successfully gaining entry to the undergraduate study in China, students' motivation was characterised by both controlled motivation (e.g., passing exams or proficiency tests) and autonomous motivation (e.g., finding a decent job), indicating that English learning was associated with future personal opportunities. Clearly, external factors cannot be overlooked in examining the motivations and regulatory behaviours of foreign language learners, particularly in the secondary schooling. However, by the time students were in the postgraduate study in China, students' motivation was much more autonomous than controlled because they were more interested in "language and its culture". It may also be that having successfully gained entry to the postgraduate study in China, students' motivations and regulatory styles could become more internalised, as they had passed various kinds of external exams and tests and also fulfilled their culturally-defined obligations to their parents. Moreover, having moved to an ESL context, students' motivation was characterised by a large increase in 14 students' motivation to engage in communication. However, only five students reported that they want to communicate with foreigners in the future while in

the undergraduate study of the EFL Chinese schooling system, indicating that after passing various examinations to entry to university some students begin to become aware of learning a L2 language for future communication.

In contrast with the results from thematic analyses of interview data, the results from confirmatory factor analyses of survey data revealed that in the overseas schooling context—where English is a second language (ESL)—as many as six factors of regulatory style (i.e., intrinsic knowledge, intrinsic accomplishment, integrated regulation, identified regulation, introjected regulation and external regulation) could be identified. The integrated regulation (e.g., I learn English well to promote my academic success) had a medium correlation with the identified regulation (e.g., I learn English because I choose to be the kind of person who can speak a second language), suggesting that these two regulations are somewhat related but distinct. The integrated regulation factor had the highest mean score among all regulatory styles, highlighting the significance of this factor to second language learning in an ESL context. Introjected regulation was rejected by the survey participants in the overseas ESL context, similar with the finding in the thematic analyses of the interview data in the EFL context, that is, Chinese domestic schooling. That seems to highlight that just meeting parents/teachers' expectations could not be an important motivation for successful foreign language learners in either an EFL or ESL context.

6.2.2 Motivational Possible Selves

After examining these students' motivation, their motivational possible selves were investigated in Study 2 as motivation seems to be related to possible selves. Regarding students' motivational possible selves, both the 'ideal L2 self' and the 'dreaded L2 self' were important sources of motivation in learning English in Chinese schooling and overseas education as well as in the lives of Chinese successful learners of English. Results from thematic analyses of interview data revealed that in the Chinese EFL schooling context, there

were 33 comments in relation to the ideal L2 self given by 17 participants and 23 comments in relation to the dreaded L2 self given by 11 participants, whereas only four comments in relation to the ought-to L2 self given by two participants. Six codes emerged in the Chinese EFL schooling context, classified into the dreaded L2 self (see Table 4), and these codes seem to involve three aspects: (1) fear of impeding personal development (e.g., not finding a decent job, not enrolling in a good university and not studying abroad to pursue a degree), which attracted a small percentage of dreaded L2 self classification (i.e., from 12.5% to 25%), (2) fear of communication, which attracted a medium percentage (i.e., 50%) of dreaded L2 self classification, and (3) fear of failure in a study programme and test (e.g., failing in a study programme and exams/tests), which attracted 100% of dreaded L2 self classification.

These results suggest that dreaded L2 self is an independent self-identity and includes the fear of not achieving the desire goals (e.g., not finding a good job) and the fear of negative consequences (e.g., failing in a study programme or tests). Further analyses of these data indicated that the difference in the distribution of the ideal and the dreaded L2 self in K-12 schooling and university stages, in favour of the ideal self, was large and statistically significant. However, the dreaded L2 self was present in all stages of learning and characterised a varied but notable minority of Chinese students (i.e., from 8% to 33%). Clearly, dreaded L2 self cannot be overlooked while examining the motivation possible selves of Chinese foreign language learners in an EFL context.

Analysis of the change in each participant's motivational possible selves over time indicated that ten participants experienced a significant shift in their 'possible selves' as they moved from an EFL to an ESL context. Furthermore, regarding participants' dominant motivational possible selves, half of the cases (ten participants) had a stable dominant self across different learning contexts, whereas another third (six participants) experienced changes in their dominant self across these different learning contexts. These findings

highlight the important role that context plays when examining students' motivational possible selves.

Confirmatory factor analyses of survey data in Study 2 revealed that in the overseas ESL schooling context, as many as five main factors (i.e., ideal L2 self, ought-to L2 self, dreaded L2 self, instrumentality prevention and social responsibility) could be identified. It was found that dreaded L2 self and instrumentality promotion were highly correlated into a single factor, suggesting that participants feared that their lower L2 proficiency would have negative impacts on their personal development. In addition, the dreaded L2 self was the most endorsed and the ideal L2 self was the second most endorsed, whereas the factors of ought-to L2 self and social responsibility were weakly endorsed. These findings highlight that the dreaded L2 self was also an important source of motivation in the ESL context, indicating that students face pressure or challenge while studying abroad and thus dreaded L2 self cannot be overlooked in examining the motivational possible selves of second language learners in an ESL context.

6.2.3 Structural Relations among L2 Regulatory Styles, Identity Changes and L2 Selves

The development of successful L2 learning involves an interaction among three different frameworks (i.e., L2 regulatory styles, identity changes and L2 possible selves). Consistent with possible future selves or imagined selves (Dörnyei, 2005; Markus & Nurius, 1986; Oxford, 2016), structural models were developed to capture possible causal relations. The regulatory styles were treated as predictor variables, with self-reported identity changes acting as mediating variables, and L2 possible selves were treated as dependent variables. Three separate structural equation models are summarised in the following sections.

6.2.3.1 Ideal L2 structural model. Ideal L2 structural model (see Figure 9) showed that only the integrated regulation predicted ideal L2 self directly, indicating that in an overseas ESL context the internalised language learning behaviour contributes to the aspiration of being a proficient L2 learner. Intrinsic accomplishment and integrated regulation predicted ideal L2 self indirectly through additive identity change, delineating the interactive process of L2 ideal self formation in an ESL context. That signifies that the behaviour of learning a second language—for the pleasure of overcoming the difficulty in studying this language or in congruency with personal needs and values—leads L2 learners to experience the co-existence of both L1 and L2 languages and then contributes to their imagination of becoming proficient L2 learners. However, intrinsic knowledge did not predict ideal L2 self either directly or indirectly, indicating that the behaviour of learning a second language to get more knowledge is not sufficient for the ideal L2 self formation in an ESL context. Likewise, productive identity change did not predict ideal L2 self, suggesting that enjoying both L1 and L2 and two cultures is not sufficient for the ideal L2 self formation in that context. Clearly, the internalised language learning behaviour plays a key role in the formation of ideal L2 self in an ESL context.

6.2.3.2 Ought-to L2 structural model. Ought-to L2 structural model (see Figure 10) revealed that both introjected regulation and external regulation had the same positive prediction to the ought-to L2 self. That indicates that in an overseas ESL context L2 learners with controlled motivation (e.g., external regulation and introjected regulation) imagine a self which meets others' expectations or societal demands. By contrast, there was no prediction between the split identity change and the ought-to L2 self, indicating that in that ESL context the feeling of being caught between L1 and L2 languages and cultures does not lead to an imagined L2 learner self that meets significant others' expectations. Clearly, L2 learners who emphasise a controlled motivation will develop an ought-to L2 self in an ESL context.

6.2.3.3 Dreaded L2 structural model. Dreaded L2 structural model (see Figure 11) showed that external regulation predicted dreaded L2 self directly. That suggests that the source of the dreaded L2 self would be external pressure or demand in an overseas ESL context. However, subtractive identity change did not predict dreaded L2 self, indicating that in that context the feeling of L1 and its culture being replaced by L2 and its culture did not contribute to the imagined fear of failing in L2 learning. Obviously, L2 learning behaviour with external motive leads to the dreaded L2 self in an ESL context.

6.3 Discussions of the Main Findings

This section discusses students' motivations to learn English, their motivational possible selves in Chinese EFL context and overseas ESL context and three structural models (i.e., ideal L2 self model, ought-to L2 self model and dreaded L2 self model).

6.3.1 Motivations to Learn English

In Chinese schooling, an EFL context, a number of motivations for successful Chinese learners of English reported are similar to those reported by previous studies. For example, passing exams or proficiency tests (*f*=45), an external regulation, and interest in

English (*f*=32), an intrinsic motivation, are the two most frequent motivations in this study. That is similar to the motivational types of immediate achievement and intrinsic interest, respectively, in Gao and her colleagues' study (Gao et al., 2003). These two motivations also appear similar to 'ought-to' L2 and 'ideal' L2 selves, respectively, in L2 Motivational Self System (Dörnyei, 2005, 2009). These motivations could also be labelled as instrumental orientation and integrative orientation in accord with Gardner's socio-educational model (2005). Furthermore, some of the motivations found in this study, that is, requirements of school or programmes (*f*=12), finding a decent job (*f*=12) and studying abroad to pursue degree (*f*=11), have similarities with Gao's motivational types of immediate achievement, individual development and going abroad, respectively.

Nonetheless, some of the motivations reported in the Chinese EFL context are different to those of previous studies. Indeed, nearly twice as many English learning motivations were found, compared to the earlier Chinese survey study (Gao et al., 2003). Specifically, self-worth (*f*=6), task mastery (*f*=6) and oral communication (*f*=10) do not seem to have appeared in previous studies. Although motivations of task mastery (4%) and oral communication (7%) accounted for a very small percentage, they are more related to *using* this language rather than *learning* this language, indicating that at least some participants (in total seven participants) were aware of using this language in the Chinese EFL context. By contrast, social responsibility, found in previous studies (Gao et al., 2003; Jiang, 2011), is not a motivation for these successful language learners, implying that it might not be considered as an important goal or motivated behaviour for this sample of successful English learners. Overall, it is concluded that foreign language learners with higher proficiency appear to have multifaceted motivations. That is, research on foreign language learners' motivations should be situated in the specifics of a language proficiency group (e.g., high-English-proficiency learners or low- English-proficiency learners).

In the overseas ESL context, this survey study argued that it will be better to distinguish the integrated regulation from the identified regulation, as the model fit indices of the L2 regulatory styles (L2RS) revised adaptive model with the integrated regulation (Model 2B; see Table 15) were much better than those of L2 regulatory styles original model without that regulation (Model 1; see Table 15). That is different from Noels and her colleagues' (2001) statement that it is hard to differentiate the integrated regulation from the identified regulation and thus there is no integrated regulation in the L2RS original model (Noels et al., 2000).

This different result might be attributed to the different L2 use contexts and the different role that this L2 plays in this context. The participants in this study were L2 (i.e., English) learners using English as a medium of higher education study in an ESL context, whereas the participants in Noels and her colleagues' study (Noels et al., 2000) were L2 (i.e., French) learners in a French-English bilingual university in Canada and they were not required to use French to undertake their study in this university. That is, regarding the application of L2 regulatory styles with adding the integrated regulation to the L2 learning (e.g., English), more studies need to be done using this L2 in an EFL context and an ESL context, respectively. Another difference between Noels study (2000) and this study might arise from the dominant position that English language occupies in the world, and thus English may be more related to personal development (e.g., integrated regulation) than other languages. Accordingly, the specifics of this L2 language (e.g., English as a L2 language or other language as a L2 language) should be taken into account in future studies.

In addition, motivation is a dynamic process, in a state of flux rather than stability (Dörnyei, 2009). Within Chinese EFL context students' motivations shifted in accordance with their different study stages, consistent with the idea that educational settings (e.g., schooling contexts, pressures, and benefits) play an important role in students' motives

(Dörnyei, 2009). In this way, it could be argued that L2 motivations exhibit strongly rational traits (Rieskamp & Reimer, 2007) within the ecology of the schooling process experienced by these students. Also, L2 learners shift their motivations in order to satisfy the different needs of different contexts. For example, moving to the ESL context reduced the motivation of learning English to pass exams or proficiency tests, whereas the need of engaging in an oral communication stands out in that ESL context. Having successfully gained entry to an overseas English doctoral programme, it seems natural that students' motivations shift towards the need to use the language in the real-world context. That is, in an EFL context, language learners are 'learners' of a language as a subject (Wei, 2016), whereas, in an ESL context, language learners are 'users' needing to communicate with others in this second language. Thus, it is concluded that L2 learning motivation research should be related to both the social micro-context (e.g., L2 learning classroom; Dörnyei, 2009) and macro-context (Lamb, 2013).

6.3.2 Motivational Possible Selves of English Learning

Firstly, the ideal L2 self was the most consistently reported dominant motivation in the semi-structured interviews study. Sixteen interview participants (80%) considered the ideal L2 self as the dominant motivation in at least one specific study stage, and nine participants (45%) had the ideal L2 self as a stable dominant motivation across both language contexts. In the overseas ESL context, ideal L2 self factor was the second most endorsed by the survey participants, emphasising the importance of this self in the ESL context. Not surprisingly, successful L2 learners tended to view the new language learning as part of an ideal L2 self. This identity predicts higher levels of motivated behaviour (Kim & Kim, 2014) and language proficiency (Dörnyei & Chan, 2013; Kim, 2012). Likewise, success in L2 learning is likely to strengthen this ideal L2 self, since success is positively related to self-confidence (Feather, 1969). In addition, the ideal L2 self is what teachers of the L2 learners

normally encourage and expect learners to become. The ideal L2 self is related to personal aspirations, satisfying an individual's inner needs and enhancing growth. This leads to an increase in an individual's psychological well-being (Ryan & Deci, 2000).

Secondly, consistent with the proposition that L2 learners have complex selves and multiple aspirations (Norton & McKinney, 2011), this doctoral study revealed that dreaded L2 self is an independent self in both Chinese EFL context and overseas ESL context. This dreaded L2 self seems particularly strong in a collectivistic context such as China, where shame of failure is used to motivate people (Wong & Tsai, 2007). That is, shame in collectivistic contexts, silent emotion that people commonly experienced, is more positively valenced because it can lead to more adaptive and better consequences (such as self-improvement) than in individualistic contexts (Wong & Tsai, 2007).

Specifically, in the Chinese EFL context, the six codes in the dreaded L2 self involved three aspects: (1) fear of impeding personal opportunities (e.g., not finding a decent job, enrolling in a good university and studying abroad to pursue a degree), (2) fear of communication, and (3) fear of failure in a study programme and/or test (e.g., failing in a study programme, exams/tests and bad impact on PhD research). It seems that the first aspect of fear is potentially facilitating; that is, it "motivates the learner to 'fight' the new learning task" (Scovel, 1978, p. 23). The other two aspects are consistent with numerous study results showing that L2 learners have communication fear and academic anxiety (Aida, 1994; Horwitz et al., 1986; Liu, 2006). Indeed, extensive research around achievement emotions indicates that the emotion anxiety, despite being a negative feeling, is an activating force leading to greater achievement (Pekrun, Goetz, Titz, & Perry, 2002). In the overseas ESL context, dreaded L2 self is also an independent self that included a sub-factor, instrumentality promotion, suggesting that this fear is related more to students' future personal development.

This dreaded L2 self factor was most endorsed by the survey participants, highlighting the significance of this self in the ESL context.

Moreover, the dreaded L2 self was a dominant motivation in all stages of learning for a notable minority of interview participants. Six participants considered dreaded L2 self as their dominant motivator in their schooling experience. This supports the argument that the dreaded L2 self could function as an emotional spur to action (Oyserman, Bybee, Terry, & Hart-Johnson, 2004). Hence, it is concluded that dreaded L2 self can be an important motivator for L2 learners. In addition, the dreaded L2 self was seen in both ESL and Chinese EFL contexts indicating that participants can experience dread at all points in their schooling careers.

Thirdly, although the ought-to L2 self is an important motivational self, especially among Chinese and East Asian students (e.g., Higgins, 1987; Peterson, Brown, & Hamilton, 2013), these successful Chinese learners of English were best characterised by the ideal and dreaded L2 self throughout their career of English study, regardless of EFL or ESL contexts. Only two participants reported four comments on ought-to L2 self at a specific study stage and the mean scores of ought-to L2 self and social responsibility factors were weakly endorsed by the survey participants in the overseas ESL context. This finding is consistent with the students' motivation finding that meeting parents/teachers' expectations just accounted for a small percentage (i.e., 5% to 17%) for successful L2 learners in either an EFL context or ESL context. Perhaps because of the relative success in learning English seen in this sample of Chinese PhD students in an English-medium university, the ideal and dreaded L2 self appeared most often throughout their career. Successful L2 learners could be motivated more by intrinsic rather than extrinsic factors (e.g., obligation to important others). It might be that successful L2 learners need more powerful motivational possible selves (e.g., ideal L2 self and dreaded L2 self) to be high achievers, rather than just meeting others'

expectations (i.e., ought-to L2 self). It may also be that having successfully gained entry into an English-speaking, high-status university, the students have fulfilled their obligations to important others (i.e., families and parents) and thus are free from such pressure. A study with a range of learners of different proficiency prior to major examinations (e.g., gao kao) may reveal a much greater sense of obligation.

Fourthly, while moving from an EFL context to the ESL context, one third of interview participants experienced a change in their dominant motivational self. That signifies that the formation of motivational possible selves in relation to L2 learning should be a dynamic process (Ellis, 2004) and related to the learning context or environment (e.g., Coleman, 1996; Dörnyei et al., 2006; Dörnyei & Csizér, 2002). Thus, it is concluded that language learning context plays an important role in the development of L2 learners' motivational possible selves. In other words, as the language learning context changes, changes in possible self are to be expected. Therefore, research on L2 motivational self should take into account the changing characteristics of language context.

Lastly, although interview participants began English study at different ages (i.e., twelve participants at primary school compared with eight at middle school), few gave any indication they were aware of possible selves as related to English learning before entering high school and beyond. Just five participants reported any awareness of self-identities in relation to English learning before high school study. This is consistent with the argument that multiple selves do not emerge until adolescence (Zentner & Renaud, 2007). Previous studies have not been able to track change and thus have not made clear whether language learners can gain an awareness of their self-identity.

6.3.3 Ideal L2 Self Model

It was the intrinsic accomplishment and integrated regulation that predicted ideal L2 self indirectly through additive identity change in the overseas ESL context. That signifies that successful L2 learners, with the motives of learning L2 either for pleasure of overcoming the difficulty in studying this language or in congruency with personal needs and values, experience the process of the co-existence of both L1 and L2 languages and cultures. That means that they can switch their languages and culture behaviours in accordance with the situational needs and this switching (i.e., additive identity change) thus contributes to their imagination of becoming proficient L2 learners.

It was the integrated regulation and only this regulation that predicted ideal L2 self directly, consistent with Dörnyei's (2009) argument that integrated regulation is more related to ideal L2 self. That implies that to some extent the aspiration of becoming a proficient L2 learner is due to the fact that learning English (i.e., a lingua franca) well can promote more personal development in an era of globalization. This regulation is consonant with individual needs and values, rather than obtaining knowledge. By contrast, identified regulation did not predict either adaptive identity change or ideal L2 self, indicating that for successful L2 learners only identification with the values of learning English was not sufficient to contribute to either adaptive identity change or ideal L2 self. That suggests that the specifics of a language proficiency group (e.g., higher/lower L2 achiever) should be taken into consideration while identifying the structural relations among autonomous motivation, adaptive identity change and ideal L2 self. In addition, intrinsic knowledge predicted productive identity change in that ESL context, consistent with the finding of Gao and her colleagues' study (Gao et al., 2007) of 2278 Chinese college students in Chinese EFL context that identified a positive correlation between interest in L2 learning and productive identity change. That again points to the need to pay attention to different contexts while examining

the structural relations among L2 regulatory styles, identity changes and L2 motivational possible selves.

6.3.4 Ought-to L2 Self Model

Consistent with Dörnyei's (2009) argument that introjected regulation and external regulation should be more related to ought-to L2 self, this study revealed that these two regulations directly predicted ought-to L2 self in the overseas ESL context. This indicates that L2 learners with external locus of control (i.e., controlled motivation) would lead to an imagined self of meeting others' expectations or societal demands. However, external regulation predicted split identity change negatively, indicating that this external regulation might alleviate successful L2 learners' struggle and confusion in their identity. Conversely, this external regulation (e.g., passing entrance exams) generated a split identity for Chinese undergraduate students in Gao and her colleagues study (Gao et al., 2007) in an EFL context. The difference in the results suggests that the specifics of a language proficiency group (e.g., higher/lower L2 achiever) and different learning contexts (e.g., EFL/ESL) as well could have impact on L2 identity formation.

By contrast, introjected regulation predicted split identity change, to some degree consistent with Dai's study (2009) which reported a positive correlation between social responsibility and split identity change among Taiwanese college students. That signifies that while L2 learners are learning L2 to enhance ego or avoid shame/guilt, they would have the feeling of internal confusion and struggle and pressure (Niemiec, Ryan, & Brown, 2008; Ryan, 1982; Ryan & Brown, 2003). That is, L2 learners with introjection motive are likely to evaluate their behaviour by social or significant others' standards. Indeed, while L2 learners have been studying and residing in an English-speaking country (i.e., an ESL context) for several years, they may have confusion over the community standard that they are expected to follow (i.e., L2 or L1 community standard). Consequently, a split identity can be formed.

That is, for the successful L2 learners in an ESL context it would be the introjection rather than the external contingency that leads to their identity confusion.

6.3.5 Dreaded L2 Self Model

External regulation directly predicted dreaded L2 self in an overseas ESL context, indicating that external pressure or demand in an ESL context leads to the fear of being a low-proficiency L2 learner. That is consistent with the semi-structured interviews finding (Yu, et al., 2018) that students face pressure and challenge while studying abroad. Introjected regulation predicted subtractive identity change, indicating that learning a L2 language to enhance ego or avoid shame/guilt would lead to their Chinese language and culture being somewhat replaced by English and Western culture in the ESL context. This result is congruent with Dai' s study (2009) identifying the positive correlation between social responsibility and subtractive identity change for Taiwanese learners of English; however, it is different to Gao and her colleagues' study (Gao et al., 2007) finding of no correlation between social responsibility and subtractive identity change for Chinese learners of English in mainland China. The different results in Taiwanese learners of English and mainland Chinese learners disclosed that even in the EFL context, L2 identity formation to some extent relies on the specific cultural and social context; that is, it to some degree depends on if foreign language learners can get more access and exposure to the Western culture in their English learning surroundings.

6.4 Limitations and Future Studies

The semi-structured interviews study relies on just 20 retrospective case studies of successful Chinese learners of English and so the generalizability of the results is weak. Accordingly, in the survey study 443 Chinese university students in New Zealand were recruited to further evaluate the results arising from the semi-structured interviews study, validate the three frameworks (i.e., L2 regulatory styles, identity changes and L2 possible

selves), and identify three specific structural models (i.e., ideal L2 self model, ought-to L2 self model and dreaded L2 self model). Nonetheless, the research design of this survey study is cross-sectional, that is, the models used to identify the links among variables are measured at the same point in time. Therefore, longitudinal survey studies of examining the structural relations among L2 regulatory styles, identity changes and L2 possible selves are needed in an ESL context and an EFL context, respectively.

Given that high correlations among predictors are identified in the ideal L2 self model (the standardised coefficient between 'intrinsic knowledge' and 'intrinsic accomplishment' was .90), multicollinearity may be a causal factor which would lead to bigger standard errors. However, the standard errors for these three structural models (i.e., ideal L2 self model, ought-to L2 self model and dreaded L2 self model), given the large sample size, were small, varying from .04 to .14. The 95% confidence intervals of the path values in the structural models do not cross zero, thus, multicollinearity does not seem to be an explanation. Nonetheless, the generalisability of these models to new samples cannot be confidently predicted. It may be that in more heterogeneous samples the inter-factor correlations may be weaker, leading to more stable path value estimation.

It is noticed that some findings reported in ideal L2 self model (see Figure 9) and in ought-to L2 self model (see Figure 10) are inconsistent with their zero-order correlations (see Table 21) counterparts. For example, the zero-order correlation between 'productive identity change' and 'ideal L2 self' was r=.57, whereas these two factors do not have statistically significant relationship (i.e., standardised path is absent) in the ideal L2 self model. The most likely cause for these inconsistencies is the different model structure. The measurement model involves 13 inter-correlated factors. However, the ideal L2 self structural model involves four exogenous variables and two mediating variables and one endogenous variable. The simpler model moves the shared variance to the retained variables, thus changing their

relations to each other. There is a probability that some latent factors are correlated statistically significant in the measurement model but do not have statistically significant causal relations in the structural model. Thus, the path values in structural equation model represent the unique contribution of this predictor to the endogenous variable after controlling for the shared variance in the correlations. That is, the complexity and sophistication of the structural model might lead to these inconsistencies. These inconsistencies suggest that these structural models should be further tested in the future studies. These structural equation models identify possible structural relations among these constructs, but researchers cannot conclude that these models have been proven to be true.

In order to evaluate whether different learning contexts would lead to a difference in the structural relations among the three frameworks aforementioned, a true experiment would be required to test the robustness of claims that EFL and ESL contexts are influential. However, the demands of such a design (i.e., random assignment of second language learners to either a second or foreign language context) make such a study expensive and ethically suspect. Thus, longitudinal tracking of learners as they migrate between contexts would more legitimately shed light on this problem. In other words, comparative studies of these structural models measured at different points in time in different learning contexts (EFL compared with ESL) are likewise necessary.

Given that there is a high correlation between ‘intrinsic knowledge’ and ‘intrinsic accomplishment’ (r= .88), it might be possible that these two factors are not distinct factors. This high correlation might be due to the homogeneous sample in this study, that is, successful Chinese learners of English (i.e., meeting the language requirement of university entrance) undertaking tertiary study in one of the universities in New Zealand. That is, in more heterogeneous samples the inter-factor correlations may be weaker. Hence, large heterogeneous samples of Chinese English learners in China (e.g., Chinese undergraduates

and postgraduates from different universities across different parts of China), would need to be recruited to test if these two factors can be separated and then further evaluate the applicability of the L2 regulatory styles (L2RS) revised adaptive model (see Appendix M) to the EFL context in the future.

Likewise, given that high correlations between 'productive identity change' and 'additive identity change' (r= .88), between 'subtractive identity change' and 'split identity change' (r= .86), it might be possible that these highly correlated factors are not distinct factors. This high correlation might also be due to the homogeneous sample in this study and it may be that in more heterogeneous samples the inter-factor correlations may be weaker. Hence, future studies with large heterogeneous samples of Chinese English learners in China (e.g., Chinese undergraduates and postgraduates from different universities across different parts of China), would test if these two highly correlated factors can be separated and further evaluate the applicability of the L2 identity changes model (L2IC; see Appendix N) to the EFL context in the future.

In addition, although Gao and her colleagues (Gao, et al., 2005) developed identity changes questionnaire and employed Cronbach alpha to test the reliability of this questionnaire, factor analysis had not been used to test the validity of this questionnaire in previous studies. Thus, it is noticed that the constructs pertaining to L2 identity changes were measured with much weaker indicators than those pertaining to L2 regulatory styles and L2 motivational possible selves. This suggests that identity changes questionnaire should be further validated in a future qualitative study aiming to generate new items in relation to identity change. Subsequently a questionnaire with additional new items should be validated in a large-scale quantitative study for more different samples. In addition, in order to evaluate the applicability of the L2 motivational possible selves to the EFL context, a relatively large

sample of Chinese English learners in China should be recruited to test the L2 motivational possible selves (L2MS) revised trimmed model (see Appendix O).

6.5 Implications

This doctoral dissertation extends existing theories (i.e., L2 regulatory styles and L2 motivational self system) and suggests the development for the ideal L2 self. It also provides practical guidance for education policymakers, foreign language learners, college foreign language teachers and overseas international offices.

6.5.1 Theoretical Implications for L2 Regulatory Styles

There is no integrated regulation in the L2 regulatory styles (L2RS) original model (Noels et al., 2000), and later Noels and her colleagues (2001) argue that it is hard to differentiate the integrated regulation from the identified regulation. The findings of this study suggest otherwise, and the addition of integrated regulation to the original L2RS is strongly recommended for two reasons. The model fit indices of the L2RS revised adaptive model (Model 2B) were much better than those of the L2RS original model (Model 1; see Table 15). The structural equation model (See Figure 9) showed that integrated regulation predicted ideal L2 self directly and indirectly through additive identity change. However, the identified regulation did not predict either productive identity change/additive identity change or ideal L2 self, signifying that the integrated regulation can contribute to the formation of the ideal L2 self, whereas identified regulation did not. Thus, differentiating the integrated regulation from the identified regulation is useful for examining the structural relations among L2 regulatory styles, identity changes and L2 possible selves. Thus, the L2RS revised model (see Appendix M) can be used in identifying the relations in longitudinal study designs.

In addition, a review of the literature indicates that two frameworks (i.e., L2 regulatory styles and L2 motivational selves) have been used to examine L2 learners' motivation, particularly in the EFL context. L2 motivational selves have been more widely used for foreign language learners (Dörnyei, 2005, 2009; Jiang, 2011; Taguchi et al., 2009; Xu, 2009) than L2 regulatory styles (Pae, 2008) in the EFL context. However, these two frameworks had not yet been compared with each other. In this doctoral study, the comparison between the two frameworks has been conducted and it revealed that the L2 regulatory styles (L2RS) revised adaptive model is much closer to the sample data. This suggests that the L2 regulatory styles framework with integrated regulation should be given sufficient attention in examining L2 learners' motivation.

6.5.2 Theoretical Implications for L2 Motivational Possible Selves

Firstly, this doctoral study contributes to the literature on L2 motivational possible selves through the inclusion of Markus and Nurius's (1986) "dreaded self" alongside Dörnyei's (2005) L2 Motivational Self System. This study revealed that the dreaded L2 self is an independent self, not necessarily the negative side of the ideal L2 self in the same domain, consistent with the proposition that language learners have multiple and changing identities (Norton & McKinney, 2011) and that the individual is described as diverse, contradictory, dynamic and changing over time and space, from the poststructuralism perspective (Norton, 2012). Thus, the L2 motivational self system framework would do well to extend its scope to allow for dreaded L2 self as a separate entity.

The results of this study revealed that the concept of L2 language learners' motivational possible selves is culturally bounded. Dörnyei (2009) argues that fear in relation to L2 learning and the ideal L2 self exist at the opposite ends of the same domain (i.e., avoiding something bad, compared with approaching good goals). That argument seems to arise from the general trend within individualistic cultures to view positive emotions as

desirable (Eid & Diener, 2001). Nonetheless, within collectivist cultures the negative emotion (e.g., shame) that learners experience can lead to self-improvement (Wong & Tsai, 2007). Rather, the potential value of including the "dreaded self" in the conceptualisation and measurement of possible selves related to L2 learning seems particularly strong in a collectivistic context such as China, where the shame of failure is used to motivate people (Wong & Tsai, 2007). In addition, dread in L2 learning would also be related to L2 learners' linguistic confidence. For example, one interview participant commented that "my fear vanished as I has great[er] confidence in my English", whereas another participant reported that "I begin to be afraid of not studying English well while studying abroad because I feel that my English is not good enough". Thus, the formation of L2 learners' motivational possible selves is a dynamic process during which the specifics of cultural context and language proficiency level should be taken into account.

The results of this study also support the notion of the dreaded L2 self as an independent self and a dominant motivator and that it would be facilitating when this fear is related to personal future development, consistent with the idea that if the fear/anxiety arises from a threat to one's positive self-image (Cohen & Norst, 1989) this fear/anxiety might motivate the learners to take actions to restore one's positive self-image (MacIntyre & Vincze, 2017). Pekrun's study (2006) revealed the positive correlation between positive emotion (e.g., hope and enjoyment) and motivation, and between anxiety and motivation, for some individuals. Subsequently, Pekrun and colleagues (Pekrun, Elliot, & Maier, 2009) suggested that negative emotions (e.g., anxiety and shame) would have positive correlation with some task performance. Bagozzi and colleagues (Bagozzi, Verbeke, & Gavino Jr, 2003) found that shame is more likely to produce more adaptive consequences (such as self-improvement) in a collectivist culture than in an individualist culture. Consequently, it is

expected that the ideal L2 self and the dreaded L2 self would interact with each other to help L2 learners to sustain their L2 learning motivation and improve their English performance.

Lastly, in the Chinese EFL context, particularly in secondary schooling, the source of this dread seems to be external, relating more to the high-stakes National College Entrance Examination (gao kao). Success in NCEE results allows admission to a prestigious key university in China and thus greater career success (Yu & Suen, 2005) and eventually would contribute to upward mobility (Feng, 1994; He, 2000; Yang, 1997). However, for students failing in the NCEE, such failure impedes upward mobility. For example, one interview participant reported "my life trajectory would change if I failed in National College Entrance Examination".

Also, failure, particularly failure in the National College Entrance Examination (gao kao), brings shame to the student and his/her family (Wong & Tsai, 2007). Failure makes students question their capability and then leads to the lower self-image, which results in shame (Babcock & Sabini, 1990; Hultberg, 1988; Thrane, 1979). Students will feel ashamed if they do not live up to parents' expectations, particularly through failure in National College Entrance Examination, because they live within a Confucian culture which advocates social responsibility and social goals (Bedford & Hwang, 2003). Also, failure in the National College Entrance Examination would impede personal and family upward mobility, as the lives of children and parents are more interrelated in the ethics of Confucianism. Consequently, 'the loser' and his/her family would have to stay in their current social status. Further, the L2 motivational possible selves (L2MS) revised and trimmed model (see Appendix O) is expected to be less fitting in a survey of L2 learners in countries with a less competitive examination system (e.g., Hungarian) and more fitting in countries with highly competitive examination systems (e.g., The Republic of Korea).

6.5.3 Theoretical Implications for Ideal Self Development

This doctoral study identifies that L2 regulatory styles and identity changes and L2 selves interact with each other in an ESL context. These help L2 learners (e.g., English language learners) to develop their identity and self so that they may develop an adaptive identity and a positive L2 self in their future L2 study. This is consistent with Oxford's (2016) EMPATHICS model of language learners' psychological well-being, which includes motivation, identity and imagination (i.e., L2 possible selves), and which interact with each other in a dynamic but complex way.

The autonomous motive (e.g., intrinsic knowledge, intrinsic accomplishment, integrated regulation and identified regulation) leads to adaptive identity change (e.g., productive identity change and additive identity change) and then contributes to the development of ideal L2 self. That is, the L2 learning behaviour, satisfying an individual's inner needs and enhancing growth tendency, will contribute to an individual's psychological well-being (Ryan & Deci, 2000), which will lead to an adaptive identity change (Soenens &Vansteenkiste, 2011) and then contribute to an ideal L2 self (i.e., aspire to a good L2 learner). As a result, L2 learners should internalise their L2 learning behaviour into their own goals or needs to form an ideal L2 self, because ideal L2 self predicts a higher level of motivated behaviour (e.g., I am determined to push myself to learn English; Kim & Kim, 2014) and language proficiency (Dörnyei & Chan, 2013; Kim, 2012).

6.5.4 Practical Implications for Education Policymakers

The semi-structured interviews study showed that the oral communication motivation only accounted for 7% in Chinese schooling, indicating that the development of oral competence in China is not given enough attention, and this possibly accounts for the 'silent English' phenomenon in China. Education policymakers should make some changes to the English tests so that they are more flexible to meet students' needs, emphasising language

usage instead of the memorising of complicated grammatical rules. It is recommended that students' oral communicative competence should be tested in the general English tests as well as the High School Graduation Test and the National College Entrance Examination (gao kao) so as to push English teachers to adopt a more communicative teaching approach.

Given the fact that it is still hard to see how these opportunities can exist when opportunities to engage in real English conversation are not easily available in Mainland China, an oral English course should be considered as a separate course, added to the current English learning curriculum, to encourage Chinese students to communicate with each other in English in this class and outside class. It is suggested that native English speakers with teaching certificates should be employed to teach oral English courses in Mainland China from primary school, where students have been required to learn English since 2001 (Ministry of Education China, 2001), in order to improve their English pronunciation and facilitate oral communicative competence.

In addition, examinations, particularly the National College Entrance Examination (gao kao), have been used to select and reward individuals in China (China Civilization Centre, 2007) for more than sixty years. The National College Entrance Examination generates great fear or pressure among students (Yu & Suen, 2005) and impedes students' creativity and autonomy (Zhang, Zao, & Lei, 2012). However, it is still a standardised and common means for admission to universities, leaving little space for using interpersonal relationships/friendships and thus it will be difficult to abolish (Muthanna & Sang, 2015). Nonetheless, it is highly recommended that it should be reformed (Lei, 2011; Wu, 2013). It should be taken many times a year in the last year of high school or after high school so that it would significantly lessen the pressure or fear arising from the current reality that 'one test can decide the students' future'. Moreover, it is highly recommended that key universities in China should expand enrolment numbers (Li & Min, 2001) and the Chinese government

should establish more public universities and simultaneously promote the development of private universities and colleges. These actions are expected to increase the admission rate of the National College Entrance Examination so that students have more opportunities to get access to the tertiary education, which would make that examination less competitive and would be likely to reduce the fear and shame of failure in that examination.

6.5.5 Practical Implications for Foreign Language Learners

The impact of moving to an ESL context upon L2 motivation is the most noticeable in the large increase in students' desire to engage in communication, suggesting that in the Chinese educational context, English learning should involve more than passing various kinds of exams or proficiency tests. Eventually, successful foreign language learners need to use English to communicate. Foreign language learners should be aware that learning a foreign language is a complicated process which involves learning this language as a subject and as a communication tool as well. In order to enhance foreign language learners' English competence, particularly oral competence, they should make use of various free English learning resources, including public libraries and websites (e.g., www.bbc.co.uk/learning english), and they could also access foreign language media literacy (e.g., news broadcasts; Kung, 2016).

6.5.6 Practical Implications for College Foreign Language Teachers

The semi-structured interviews study revealed that the motivation of the 20 interviewees was mainly dominated by passing exams or proficiency tests in the Chinese EFL context, and by oral communication in the overseas ESL context. This indicates that teachers tend to adopt an examination-oriented teaching model (Gao & Watkins, 2001) and parents expect teachers to offer teaching activities that result in higher scores in those examinations (Watkins & Biggs, 2001). This exam-oriented English learning and teaching context

undermines the importance of developing oral competence and may lead to the strange phenomenon in China of "silent English" (Zhao, 2009, p. 154).

However, given the fact that the current National College Entrance Examination (gao kao) cannot be reformed immediately, it is realistic to recommend college foreign language teachers, rather than secondary school teachers, to adopt a more communication-oriented approach. College foreign language teachers are expected to create more communicative learning environments and opportunities in their classes. They should help students to realise that foreign language learning is 'language learning', and not 'subject learning'. Thus, teachers should encourage students to participate in various kinds of foreign language communicative activities so as to practice oral foreign language outside the classroom. They should create an interesting language learning classroom (Dörnyei & Csizér, 1998), stimulate students' motivation, and maintain and protect their motivation (Dörnyei, 2001a). This could make up for the negative impact of examination-focused language learning in the students' secondary schooling. Additionally, it is recommended that the Computer-Assisted Language Learning (CALL) should be integrated into the college foreign language class to facilitate mutual communication, although this is difficult by the lack of open access to English social media systems (Mei, Brown, & Teo, 2017).

Moreover, college foreign language teachers should help students to internalise the behaviour of foreign language learning into their own goals or needs so that they will aspire to become a good language learner, because the integrated regulation can directly predict ideal L2 self. In doing so, it is recommended that college English teachers should be given more opportunities to study abroad by being a one-year visitor, for example, or pursuing postgraduate study in one of the prestigious overseas universities in an English-speaking country. If the students want to study or travel abroad, teachers could guide students to read more books about the cultural differences between the two countries, share their overseas

study and life experiences with students and create a more communicative English class environment to help students to practice their oral English. In this way, the students' aspirations of becoming good foreign language learners would be formed. This ideal L2 self can encourage students to spend more time in English study (Jiang, 2011) and it can also lead to achieving a higher level of language proficiency (Dörnyei & Chan, 2013; Kim, 2012).

6.5.7 Practical Implications for the International Office of Overseas University

It is recommended that the international office of overseas universities (e.g., the University of Auckland) conduct a large-scale survey of its international students, particularly those who come from non-English speaking countries and different cultures. This survey would aim to examine whether the international students experience potential identity change while studying in the university. This survey could refer to the questionnaire items in the L2 identity changes model (see Appendix N). Also, it is suggested that the international office provide a workshop in relation to potential identity change to the international students. In these workshops, referring to the three structural models (e.g., ideal L2 self model, ought-to L2 self model and dreaded L2 self model), the instructors could use comic pictures to present the different states between the international students who enjoy the two languages and cultures (e.g., happy face image) and those who feel confusion/subtraction about the two languages and cultures (e.g., unhappy face image). For example, for the former students a series of pictures could be used to describe a person who has internalised motives to learn English and enjoys his/her overseas study experience and then imagines themselves as a high English achiever. By contrast, for the latter students the pictures could depict a person who has introjected motives to learn English and feels conflicted or confused about his/her identity and as a result is unhappy with his/her overseas study experience.

Students should be helped to discuss, in small groups, their experiences of studying abroad. After discussion, the instructors should make students aware of the possibility that

they might experience maladaptive identity change (e.g., they feel as if they are being caught in-between the two languages and cultures or feel their first language and culture is being somewhat replaced by the L2 language and culture). Instructors should also guide students into internalising their behaviour of their English learning into their own needs thereby developing an adaptive identity change (e.g., enjoy both languages and cultures or the coexistence of the two languages and cultures).

6.6 Significance of the Study

This study employed mixed-methods to make an original contribution to the research on L2 motivational possible selves. An important contribution was the inclusion of Markus and Nurius's (1986) "dreaded self" alongside Dörnyei's (2005) L2 motivational self system (L2MSS). This study was among the first to directly test the two selves assumptions of Dörnyei's L2MSS.

This doctoral study's thematic analysis of the interview data has begun to capture the changes in motivations and self-identities across different study and development stages within the life of a L2 learner. As result of this study, it is strongly suggested that research on L2 motivation and self-formation should take into account the changing characteristics of environments and conditions. This retrospective approach to a longitudinal study is a beginning to highlighting what the field needs. For too long, research has relied upon cross-sectional research designs at a single time point, giving a 'snapshot' (Gao et al., 2003; Jiang, 2011; Noels et al., 2000). The results of this preliminary study clearly indicate a longitudinal study across many contexts is needed to properly understand L2 motivation and self-formation.

Also, thematic analyses of the interview data revealed that both the 'ideal L2 self' and the 'dreaded L2 self' are important sources of motivation in both Chinese EFL and overseas

ESL contexts. This indicates that successful L2 learners can be expected to have had multiple motivational possible selves in their journeys to success. Although the ought-to L2 self is an important motivational self, especially among Chinese and East Asian students (e.g., Higgins 1987; Jiang, 2011; Peterson et al., 2013), dread in relation to personal development may be facilitating in conditions where the external source of dread of failure is internalised. This signifies that the specifics of language proficiency level (e.g., high/low L2 achiever) and cultural origins need to be taken into account in the research on L2 motivational possible selves. Thus, the L2MSS framework would do well to extend its scope to allow for the dreaded L2 self as a separate entity.

Confirmatory factor analyses of the survey data confirmed and validated five factors in relation to identity changes, thus extending Gao and her colleagues' study (Gao et al., 2005). These five factors accord with the presumption (Gao, 1994; Gao et al., 2005) that there are five kinds of identity changes (i.e., productive change, additive change, subtractive change, split change and zero change), whereas they diverge from the supposition that bilingualism merely consists of "subtractive bilingualism" and "additive bilingualism" (Lambert, 1974). Confirmatory factor analyses of the survey data also compared and evaluated multiple models, which had not been done in previous studies. This more robustly identified a better fitting model. In this sense, the thesis brings greater methodological robustness to the analysis of cross-sectional survey data around L2 regulatory styles and self-identities. This process of testing and evaluating multiple models conforms to modern standards and approaches to confirmatory factor analysis and structural equation modelling and should be expected of all such survey studies.

This doctoral study firstly examines English learning motivations and self-identities of successful Chinese learners of English. In contrast to the studies reviewed in Chapter 2, whose samples consisted mostly of Chinese undergraduates and the criterion for measuring

their language proficiency was a domestic English test (e.g., College English Test), the sample in this study can be legitimately viewed as successful L2 learners, as they all have met English language requirements of university entrance. Hence, this study gives true insights into the language learning development of good language learners, so that other language learners can draw on their successful L2 language learning experiences.

Another original contribution of this doctoral study is the development of causal correlational structural models concerning the formation of ideal L2 self, ought-to L2 self and dreaded L2 self. This is a major and unique contribution not found in any of the previous studies on L2 self-identity formation. The models delineate the dynamic and interactive process of L2 learning development, originating from L2 regulatory styles, leading to identity changes and contributing to self-formation. It implicates that the language learning development of L2 learners is changing and dynamic and interrelated. In addition, this doctoral study implicates that L2 learning development is complex and mixed. The motivations and self-identities of successful L2 learners are characterised by autonomous motivation and ideal L2 self. However, controlled motivation (e.g., external regulation such as exams) and the dreaded L2 self can been seen over the life of their English learning trajectory. In other words, good language learners have various kinds of motivations and self-identities. Consequently, it is expected to see both positive and negative self-images, and the autonomous and controlled motives would also interact with each other to help L2 learners to sustain their L2 learning motivation and improve their English performance.

Moreover, this doctoral study opens the door to understanding how the psychology of the L2 learners influences their L2 self-identities. L2 learners' psychology should be incorporated into the research and theory on L2 motivations and self-identities, in the hope that researchers and theorists could provide a full profile of L2 learners' motivations and self-identities. Shame and guilt are considered as important psychological factors of Chinese

people, as these are used to motivate people (Wong & Tsai, 2007). Shame is more likely to produce more adaptive consequences (such as self-improvement) in a collectivist culture than in an individualist culture (Bagozzi et al., 2003). In order to fully capture the characteristics of L2 learners' motivations and self-identities, their psychological factors within a specific cultural context should be taken into consideration.

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Appendices

Appendix A. Coding Dictionary for Motivations to Learn English

Category	Meaning	Two examples of coding quotes
Controlled Motivation	***English learning behaviour is considered controlled.***	
External regulation	***English learning behaviour is controlled by external contingencies.***	
Immediate demands	*English learning behaviour is to meet immediate demands.*	
Communi-cation	I learn English to communicate with others while studying abroad.	Using the language to communicate is a high motivation for me to learn English while studying abroad. (09). Although English was not a compulsory course while studying abroad, I had to learn English to communicate with others since I was in the overseas environment. (04).
Pass exams or proficiency test	I learn English to pass various exams or proficiency tests.	Apart from passing general English exam, the motivation to study English was to pass the National College Entrance Examination, which was very important to me. (01). To pass College English Test 4 & 6 was a medium motivation to stimulate me to study English (06).
Require-ment of school/ programmes	I learn English to meet the requirement of school or programmes.	English learning should be regarded as a subject, a requirement of PhD programme while studying abroad. (20). High motivation for studying English well was to publish several English papers, which was one of the requirements for postgraduate graduation in my university. (09).

Category	Meaning	Two examples of coding quotes
Introjected regulation	***English learning behaviour is not fully accepted as one's own.***	
Family/ Friends' influence	I learn English because my friends/family learned/liked this language.	My peer students began to learn English in cram school, so my mother sent me to cram school to learn English, too. (013). My cousin liked English so she had some influence in my English learning. (19).
Meeting parents/ teachers' expectations	I learn English to meet teachers/ parents' expectations.	My parents expected me a lot over the whole English learning process. Their great expectations have encouraged me to study harder. (02). Meeting teachers' expectations was a medium motivation for me to study English. (18).
Self-worth	Learning English well can boost self-worth.	English gave me a lot of self-confidence since my scores of English were much higher than my classmates. (13). In middle school, I got some interest in English learning because my English marks were higher than before, and this sense of self-achievement push me to study English hard (20).
Autonomous motivation	***English learning behaviour is autonomous or self-determined.***	
Identified/integrated regulation	***English learning behaviour is identified with value/in congruence with one's own values and needs.***	
Future goals	*English learning behaviour helps me achieve future personal goals.*	

Category	Meaning	Two examples of coding quotes
Communi-cation	I learn English in order to communicate with foreigners in the future.	In undergraduate study, the next goal is to communicate with people from different countries. (08). In high school, I wanted to communicate with foreigners in the future, which was one of the main reasons for studying English harder. (17)
Finding a decent job	I learn English in order to find a decent job in the future.	My reasons for learning English were finding a good job after graduation. (05). During my postgraduate study, I knew that if I wanted to find a job in Shanghai, I must learn English well. (08).
Professional /academic develop-ment	I learn English to promote professional and academic development in the future.	Another reason for my English learning was to for career development while studying at the University of Auckland. (12). Professional development was also the high motivation for me to study English for getting a promotion. (14).
Studying abroad to pursue degree	I learn English in order to study abroad to pursue a degree.	Studying abroad was also the reason for my studying English in university study. (17). I wanted to study abroad, so to study abroad was the reason for learning English. (12).
Intrinsic motivation	***English learning behaviour comes from inside the individual.***	

Category	Meaning	Two examples of coding quotes
Interest	I learn English because of my interest in it.	When I first got access to English in my primary school and it was a new language for me so I was curious about and interested in it. (03). At that time, English learning was not a compulsory subject, and I was very interested in English because of freshness. (15).
Task mastery	I learn English to master this language.	I should master this language better because what I had learned in undergraduate study was not enough. (14). To improve my English competence and master this language is also a very high motivation for me to study English well. (13).

Appendix B. Coding Dictionary for Motivational Possible Selves

Category	Meaning	Two examples of coding quotes
Ideal L2 self	***I would like to become a good English learner.***	
Communi-cate with others fluently	Learning English well can communicate with others fluently in English.	Now if I could study English well, I could communicate with my supervisors freely. (03). If I could study English well, I am willing to communicate with others freely. (14)
Enrol in a good university	Learning English well is helpful to enrol in a good university.	If I would study English well, I could be enrolled in a good university in China, as English was one of the subjects of NCEE. (02). If I could study English well, it would increase my overall scores in NCEE and be admitted to a good university. (03)
Find a decent job	Learning English well is helpful to find a decent job.	If I could study English well, I could be a simultaneous interpreter in the future. (16). If my oral English could be fluent, I would get a teaching job in the university because good oral English is one of the requirements for some universities while recruiting academic who will be teaching this subject in English. (02)

Category	Meaning	Two examples of coding quotes
Make more foreign friends	Learning English well can make more foreign friends.	If I could study English well, I could make a lot of foreign friends. (09). I got the feeling that if I could study English well, I would make more foreign friends. (08)
Professional and academic development	Learning English well is helpful to promote professional and academic development.	I could imagine that if I could study English well, it could be very helpful for my future job promotion. (05). I imagined that if I could study English well, I could have good performance in a conference and become an active member in the academic community. (16)
Study abroad	Learning English well can study abroad.	I imagined that if I could study English well, I could go abroad to pursue doctoral study. (06). I imagined that if I could study English well, I could get the opportunity to study abroad as an exchange student funded by Chinese government. (07)
Ought-to L2 self	***I should become a good English learner to meet requirement or others' expectations.***	

Category	Meaning	Two examples of coding quotes
Requirement of school or subject	I should study English well to meet the requirement of school or study subject.	From primary school, through middle school, to high school, I just think that I should study English well to get higher scores or full marks in English tests, as it was a compulsory course. (07). In my undergraduate study, I realised that English is my subject so I should learn it well; I have never thought about what would happen if I could not study it well, or I study it well. (11)
Dreaded L2 self	***I am afraid of becoming a bad English learner.***	
Fear of bad impact on PhD research	I fear of bad impact on my PhD research because of low English proficiency.	If I could not learn English well, the biggest fear is my PhD research would not go very well. (16). Our PhD research work could not be presented to others due to bad language competence. (17)
Fear of failing in exams (e.g., NCEE) or English proficiency tests (e.g., CET, TEM)	I fear of failing in exams or proficiency tests because of low English proficiency.	I feared that if I had not studied English well, I would have failed in my National College Entrance Examination, which would have changed my life trajectory. (01). I feared that if I could not study English well, I could not pass TEM 8. (13)

Category	Meaning	Two examples of coding quotes
Fear of failing in study programme	I fear of failing in study programme because of low English proficiency.	I imagined that if I could not study English well, I could fail in CET4. If I failed in CET4, I would not graduate from the university, getting bachelor's degree. (06). In my overseas doctoral study, I imagined that if I could not learn English well, I could not write out a qualified PhD dissertation for graduation. (14)
Fear of not communi-cating with others fluently	I fear of not communicating with others frequently because of low English proficiency.	If I could not study English well, I could not communicate with others freely. (18). But now if I could not study English well, I could not communicate with others freely, expressing my ideas properly. (09)
Fear of not enrolling in a good university	I fear of not enrolling in a good university because of low English proficiency.	If I could not learn English well, it could be more likely that I could not be enrolled in a good university in China. (02). If I could not learn English well, I would not be admitted to a good university. (03)

Category	Meaning	Two examples of coding quotes
Fear of not finding a good job	I fear of not finding a good job because of low English proficiency.	If I could not study English well, not passing CET 4 & 6, there would be some limitations on my job hunting. (02). If I could not study English well without CET 4 & 6 certificate, I would be eliminated from the job hunting. (03)
Fear of not studying abroad	I fear of not studying abroad because of low English proficiency.	A little fear that if I could not study English well, I could not study abroad to pursue a doctoral degree. (02). I got the fear feeling that if I could not study English well, I could not pass TOEFL and apply for PhD programme abroad. (08)

Note. NCEE = National College Entrance Examination; CET = College English Test; TEM = Test for English Major; CET and TEM are standardised national English proficiency tests for university students in the People's Republic of China.

Appendix C. Coding Dictionary for Causes to Success in English

Category	Meaning	Two examples of coding quotes
Internal locus	***Participants attributed the source of their success in English learning to internal factors.***	
Interest	Interest in English contributed to my success in English learning.	The second factor contributing to my success is that I like English, especially now I like it very much (11). The first is that I have some interest in this language, not rejecting this language (14).
Effective English learning methods	Effective English learning methods contributed to my success in English learning.	English learning method is very important, too. My English learning method is relatively traditional learning English textbooks, but I learned these English textbooks in schools very well (14). I think that learning English should begin with listening, understanding what others are talking about. Only if you can understand what they are talking about, you can communicate with them. I like watching American TV shows, and these authentic listening materials are close to real life English so I find that they are much more useful than these

Category	Meaning	Two examples of coding quotes
		tests in China especially when I studied abroad (06).
Diligence	Diligence (spending a lot of time in learning English) contributed to my success in English learning.	I got up earlier than others, reading a lot of English materials in my undergraduate study, and I think that it is the diligence that helps me a lot in my English study (09). The first is that I study English hard spending a lot of time in learning English (10).
To study abroad	My thought of studying abroad contributed to my success in English learning.	I intended to study abroad, so I had studied English hard (05). This thought of studying abroad was more positive, stimulating me to study English continually (08).
Perseverance	Perseverance contributed to my success in English learning.	Next, it is the perseverance. Especially when you are reciting some new words, you must have perseverance (06). But I think that what I have achieved with regard to English learning is a consequence of my perseverance in English learning (05).
Talent	Talent in English contributed to my success in English learning.	I think that I have some talent in English language learning (17). I think that this is my nature, and everyone

Category	Meaning	Two examples of coding quotes
		may be good at something having some talent in this language (20).
Self-confidence	Self-confidence in English contributed to my success in English learning.	I have great faith in learning well because people from other countries can learn English well and I can do it since I am not a stupid guy (01). The first is confidence coming from my early years of English study from my primary school through middle school to high school because I was always the top student in English learning and that builds my confidence to learn English and to speak (16).
External locus	***Participants attributed the source of their success in English learning to external factors.***	
Good English learning atmosphere	Good English learning atmosphere contributed to my success in English learning.	My university is a very good university in China having a stronger English learning atmosphere that leads to my English success (14). My family has this kind of English learning atmosphere because many relatives in my family have been abroad, giving a lot of information about foreign countries. My mother used to be an

Category	Meaning	Two examples of coding quotes
		English teacher sharing with me her former English learning materials and my father was good at English speaking, winning the first prize in the English-speaking contest. My aunty and aunty-in-law graduated from overseas universities. Therefore, my family and this English learning atmosphere are very helpful for my success (17).
Meeting the occupation need of being an English teacher	As an English teacher, meeting the occupation need contributed to my success in English.	As an English teacher, I must learn English well, knowing much more knowledge in terms of English than my students and explaining the questions asked by your students clearly (13). Currently, English teaching in university is different from the traditional English teaching focusing on listening, speaking, writing and reading. We, as a university English teacher, should know some knowledge about business English, international trade, legal English, and so on (11).

Category	Meaning	Two examples of coding quotes
Meeting the requirement of school	Meeting the requirement of school contributed to my success in English.	English subject is the requirement for High School Entrance Examination, National College Entrance Examination, and Postgraduate Entrance Examination, so I had to learn it well, memorizing the English vocabulary and grammar rules and doing a lot of English practice tests (02). To meet English requirements to go after my study is one of the factors to help my success in English (03).

Appendix D. Interview Protocol

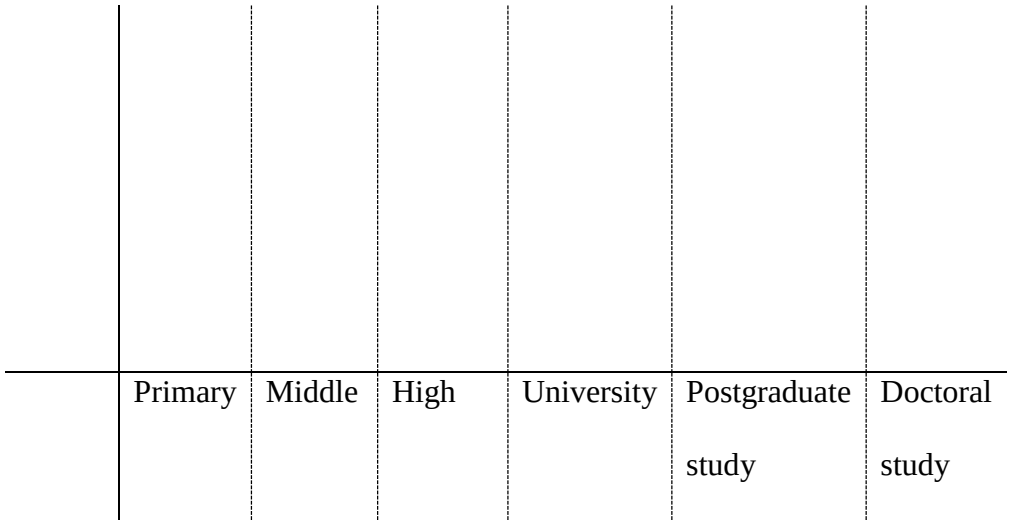
1. **Introduction**: Myself and the broad purpose of the research and the statement about confidentiality
2. **Your goals & motivations**. Indicate on the timeline when you started learning English. What were YOUR motivations for learning English? How did they change? Use this diagram to show how strong your motivations were at each time.

Very High						
High						
Medium						
Low						
Very Low						
	Primary	Middle	High	Undergraduate	Postgraduate	Doctoral study

3. **Your possible selves in relation to English learning**

Did you have any imagination or thought of what would happen, if you study English well or not well, or anything else while studying English?

(If participant response was Yes, he/she was given the graph below to describe the imagination or thoughts from the beginning of having that thought in relation to English study through to current doctoral study in the ESL context in the sequence of study stage.)



4. Which imagination, such as learning English well or not well or anything else, would push you to study English harder? (Participants were given prompts to answer this question at each study stage in which they described their motivational possible selves.)

5. Your successful factors. You are a relatively successful English language learner. What factors have helped you to be successful?

Appendix E. Motivation and English Learning Survey (MELS)

Instruction: This survey is to help us learn more about your motivation related to English language learning. Please indicate how strongly you agree or disagree with the following statements.

Section I

1. I study English because close friends of mine think it is important.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

2. I learn English because I have the impression that it is expected of me.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

3. Studying English can be important to me because I think it will someday be useful in getting a good job.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

4. I worry that if I did not speak English well, I will not find a good job.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

5. I can imagine myself living abroad and having a discussion in English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

6. Learning English is necessary because people surrounding me expect me to do so.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

7. I learn English in order to get a more prestigious job in the future.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

8. Studying English is important because with a high level of English proficiency I will be able to make a lot of money.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

9. I have to learn English because I don't want to fail my courses.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

10. I can imagine myself speaking English with international friends or colleagues.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

11. I consider learning English important because the people I respect think that I should do it.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

12. I learn English in order to have a better salary in the future.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

13. Studying English is important to me because English proficiency is necessary for promotion in the future.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

14. I have to study English because I don't want to get bad marks.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

Do you have any comments on how easy or difficult it was to understand the questionnaire items and to use the rating scale? If it was difficult to understand the questions and use the rating scale, please indicate why and how they might be improved?

15. I imagine myself as someone who is able to speak English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

16. Studying English is important to me in order to gain the approval of my peers/teachers/ family/boss.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

17. I worry that if I did not speak English well, I would not integrate into the local society.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

18. Studying English can be important to me because I think I'll need it for further studies.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

19. Studying English is necessary for me because I don't want to get a poor score or a fail mark in English proficiency tests.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

20. I can imagine myself speaking English as if I were a native speaker of English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

21. It will have a negative impact on my life if I don't learn English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

22. I worry that if I did not speak English well others would laugh at me.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

23. The things I want to do in the future require me to use English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

24. Studying English is important to me because, if I don't have knowledge of English, I'll be considered a weak student.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

25. Whenever I think of my future career, I imagine myself using English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

26. Studying English is important to me because an educated person is supposed to be able to speak English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

27. Studying English is important to me because it offers a new challenge in my life.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

28. Studying English is important to me, because I would feel ashamed if I got bad grades in English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

Do you have any comments on how easy or difficult it was to understand the questionnaire items and to use the rating scale? If it was difficult to understand the questions and use the rating scale, please indicate why and how they might be improved?

29. Studying English is important to me because other people will respect me more if I have some knowledge of English.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

30. Studying English is important to me in order to achieve a special goal (e.g. to get a degree or scholarship).

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

31. Studying English is important to me in order to attain a higher social respect.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

32. I worry that if I did not study English well, I would not be able to communicate with my future employer and colleagues.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

33. I learn English to show myself that I am a good citizen because I can speak a second language.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

34. I worry that if I did not study English well, I would not meet the academic requirements of the university.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

35. I learn English because I think it is good for my personal development.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

36. I learn English for the pleasure that I experience in knowing more about the literature of the second language group.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

37. I learn English for the pleasure I experience when surpassing myself in my second language studies.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

38. I learn English because I would feel ashamed if I couldn't speak to my friends from the second language community in their native tongue.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

39. I learn English for the satisfied feeling I get in finding out new things.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

40. I learn English for the enjoyment I experience when I grasp a difficult construct in the second language.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

41. I learn English for the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

Do you have any comments on how easy or difficult it was to understand the questionnaire items and to use the rating scale? If it was difficult to understand the questions and use the rating scale, please indicate why and how they might be improved?

42. I learn English because I would feel guilty if I didn't know a second language.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

43. I learn English because I choose to be the kind of person who can speak a second language.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

44. I learn English because I enjoy the feeling of acquiring knowledge about the second language community and their way of life.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

45. Only when I have a good command of English can I live up to the expectations of my parents.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

46. Only when I have a good command of English can I contribute to China's prosperity well.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

47. I learn English in order to let the world know more about China.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

48. I learn English well to integrate into the Western societies.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

49. I learn English because I choose to be the kind of person who can speak more than one language.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

50. I learn English well to promote my academic success.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

51. I learn English well to promote my professional development.

1	2	3	4	5	6
Strongly Disagree	*Usually Disagree*	*Slightly Agree*	*Moderately Agree*	*Usually Agree*	*Strongly Agree*

Section II

In this section, please indicate how strongly you agree or disagree with the statements which are about your personal identity, ***"When you are undertaking your tertiary study in the English-speaking country".***

52. I can easily switch between Chinese and English according to situational needs.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

53. After learning English, I feel my behaviors have become somewhat Westernized.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

54. I feel weird when my speech in Chinese is subconsciously mixed with English words.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

55. After learning English, I find myself more sensitive to changes in the outside world.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

Do you have any comments on how easy or difficult it was to understand the questionnaire items and to use the rating scale? If it was difficult to understand the questions and use the rating scale, please indicate why and how they might be improved?

56. After learning English, I have begun to reject some traditional Chinese ideas.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

57. With the improvement of my English proficiency, I can better appreciate the subtleties in Chinese.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

58. An instrument is an instrument. It is impossible for me to change into another person after learning a language.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

59. I am relatively confident when speaking in English, and relatively modest when speaking in Chinese.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

60. As my ability of appreciating English literature and arts increases, I have become more interested in Chinese literature and arts.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

61. I prefer to listen to the original English dialogue when watching English movies, just as I enjoy the original Chinese dialogue when watching Chinese movies.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

62. I have an English name in addition to my Chinese name. They are used in different situations.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

63. With the improvement of my English proficiency, I feel my Chinese is becoming less idiomatic.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

64. After learning English, I have developed repugnance to some Chinese conventions.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

65. After learning English, I have become more understanding and can better communicate with others.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

66. When parting with foreign friends, I'm frequently confused as to whether I should shake hands or hug and kiss.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

67. I feel a painful split when I switch between English and Chinese behavioral patterns.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

68. After learning English, I'm often caught between contradicting values and beliefs.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

69. No matter which language is used for expression, I remain to be myself (Chinese).

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

Do you have any comments on how easy or difficult it was to understand the questionnaire items and to use the rating scale? If it was difficult to understand the questions and use the rating scale, please indicate why and how they might be improved?

70. I have not felt any change in myself after learning English.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

71. For me, it is meaningless to talk about personal changes after learning English.

1	2	3	4	5	6	7
Strongly Disagree	*Mostly Disagree*	*Somewhat Disagree*	*Neutral*	*Strongly Agree*	*Mostly Agree*	*Somewhat Agree*

Appendix F. Motivation and English Learning Survey (MELS)

Are you an international student with Chinese citizenship undertaking tertiary study in New Zealand?

Yes No

(If students answer Yes, the instruction below will be displayed; if students answered No, they will come to the end of the survey)

Instruction: This survey is to help us learn more about **your motivation related to English language learning when you are undertaking tertiary study in New Zealand.** Please indicate how strongly you agree or disagree with the following statements.

Note: Answer all the questions, please. You cannot go to the next page unless all questions are answered.

Note: Seven-point Likert scale is used as follows, and somewhat means "a little".

Strongly disagree | Disagree | Somewhat disagree | Neither disagree nor agree | Somewhat agree | Agree | Strongly agree

Section I

1. I learn English because I have the impression （想法） that it is expected of me.

2. Studying English can be important to me because I think it will someday be useful in getting a good job.

3. I worry that if I did not speak English well, I would not find a good job.

4. I can imagine （想象） myself living abroad and having a discussion in English.

5. Learning English is necessary because people surrounding （周围的） me expect me to do so.

6. I learn English in order to get a more prestigious （受人尊敬的） job in the future.

7. I have to learn English because I don't want to fail my courses.

8. I can imagine （想象） myself speaking English with international friends or colleagues.

9. I consider learning English important because the people I respect think that I should do it.

10. I learn English in order to have a better salary in the future.

11. Studying English is important to me because English proficiency （熟练，精通） is necessary for promotion in the future.

12. I have to study English because I don't want to get bad marks.

13. Studying English is important to me in order to gain the approval （赞同，认同） of my peers/teachers/family/boss.

14. I worry that if I did not speak English well, I would not fit into （融入） the Western society.

15. Studying English can be important to me because I think I'll need it for further studies.

16. I can imagine（想象）myself speaking English as if I were a native （本土的） speaker of English.

17. I worry that if I did not speak English well, others (e.g., teachers or peer students) would laugh at me.

18. Whenever I think of my future career, I imagine （想象） myself using English.

19. Studying English is important to me because an educated person is supposed to be able to speak English.

20. Studying English is important to me, because I would feel ashamed （羞愧的） if I got bad grades in English.

21. Studying English is important to me in order to achieve （达到） a special goal (e.g., to get a degree or scholarship).

22. Studying English is important to me in order to attain （获得） a higher social respect.

23. I worry that if I did not study English well, I would not be able to communicate with my future employer and colleagues.

24. I learn English to show myself that I am a good citizen (i.e., Chinese citizen) because I can speak a second language.

25. I worry that if I did not study English well, I would not meet the academic （学业的，学术的） requirements of the university.

26. I learn English because I think it is good for my personal development.

27. I learn English for the pleasure that I experience in knowing more about the literature of the second language group.

28. I learn English for the pleasure I experience when surpassing （超越） myself in my second language studies.

29. I learn English because I would feel ashamed （羞愧的） if I couldn't speak to my friends from the second language community in their native tongue.

30. I learn English for the satisfied （满意的） feeling I get in finding out new things.

31. I learn English for the enjoyment I experience when I grasp a difficult construct （例如语法体系） in the second language.

32. I learn English for the satisfaction （满意） I feel when I am in the process of accomplishing （完成） difficult exercises in the second language.

33. I learn English because I would feel guilty （内疚的） if I didn't know a second language.

34. I learn English because I choose to be the kind of person who can speak a second language.

35. I learn English because I enjoy the feeling of acquiring （获得） knowledge about the second language community and their way of life.

36. Only when I have a good command of English （学好英语，掌握这门语言） can I live up to （达到） the expectations of my parents.

37. Only when I have a good command of English can I contribute to （出一份力） China's prosperity （富强） well.

38. I learn English in order to let the world know more about China.

39. I learn English well to integrate （融入） into the Western societies.

40. I learn English because I choose to be the kind of person who can speak more than one language.

41. I learn English well to promote （促进） my academic （学术的，学业的） success.

42. I learn English well to promote my professional （职业的） development.

Section II

In this section, please indicate how strongly you agree or disagree with the statements which are about your personal identity, **"When you are undertaking tertiary study in New Zealand".**

Note: Answer all the questions, please. You cannot go to the next page unless all questions are answered.

43. I can easily switch （转换） between Chinese and English according to situational needs.

44. After learning English, I feel my behaviors have become somewhat （稍微，有点儿） Westernized.

45. I feel weird （怪怪的） when my speech in Chinese is subconsciously （潜意识地，下意识地） mixed with English words.

46. After learning English, I find myself more sensitive （感受到……的） to changes in the outside world (e.g. globalisation).

47. After learning English, I have begun to reject some traditional Chinese ideas.

48. With the improvement of my English proficiency （熟练，精通） I can better appreciate （欣赏） the subtleties （微妙） in Chinese.

49. An instrument is an instrument （英语就是一种工具）. It is impossible for me to change into another person after learning a language.

50. I am relatively confident when speaking in English, and relatively modest （谦逊的，小心谨慎的） when speaking in Chinese. （当我用英语表意时，我的言语展现出西方文化自信的风格；当用汉语表意时，我的言语体现出汉文化的谦逊风格）。

51. As my ability of appreciating （欣赏） English literature and arts （文学和艺术） increases, I have become more interested in Chinese literature and arts.

52. I prefer to listen to the original English dialogue （原声的英语对话） when watching English movies, just as I enjoy the original Chinese dialogue （原声的中文对话） when watching Chinese movies.

53. I have an English name in addition to （除……之外，还有） my Chinese name. They are used in different situations.

54. With the improvement of my English proficiency （熟练，精通）, I feel my Chinese is becoming less idiomatic （语言地道的）.

55. After learning English, I have developed repugnance （厌恶） to some Chinese conventions （传统，习俗）.

56. After learning English, I have become more understanding （通情达理的） and can better communicate with others.

57. When parting with （分开） foreign friends, I’m frequently confused as to whether I should shake hands or hug and kiss.

58. I feel a painful split （自我身份分裂） when I switch （转换） between English and Chinese behavioral patterns （行为模式）.

59. After learning English, I’m often caught between contradicting values and beliefs.

60. No matter which language is used for expression （表达我的想法） I remain to be myself (Chinese) （我仍然是一个中国人）.

61. I have not felt any change in myself after learning English.

62. For me, it is meaningless （无意义的） to talk about personal changes after learning English.

Please indicate your study program:

Undergraduate Undergraduate (Honours) Postgraduate (Master Degree)

Postgraduate (PhD) Other (Please specify)

Please indicate the year of your study:

First-year Second-year Third-year

Fourth-year Fifth-year Sixth-year or more

Please indicate the faculty in which you are undertaking your study:

Faculty of Education Faculty of Arts Faculty of Law

Faculty of Science Faculty of Engineering Faculty of Business and Economics

Faculty of Medical and Health Sciences

Please indicate your gender: Male Female

Please indicate your age:

19 or younger 20-24 25-29 30-34 35-39 40-44

45-49

Appendix G. Revision for L2 Regulatory Styles Questionnaire Items

Original version	Adapted version
1. I learn English because I have the impression that it is expected of me.	1. (a) I learn English because I have the impression （想法） that it is expected of me.
2. I learn English in order to get a more prestigious job in the future.	2. (a) I learn English in order to get a more prestigious （受人尊敬的） job in the future.
3. I learn English to show myself that I am a good citizen because I can speak a second language.	3. (a) I learn English to show myself that I am a good citizen (i.e., Chinese citizen) because I can speak a second language.
4. I learn English for the pleasure I experience when surpassing myself in my second language studies.	4. (a) I learn English for the pleasure I experience when surpassing （超越） myself in my second language studies.
5. I learn English because I would feel ashamed if I couldn't speak to my friends from the second language community in their native tongue.	5. (a) I learn English because I would feel ashamed （羞愧的） if I couldn't speak to my friends from the second language community in their native tongue.
6. I learn English for the satisfied feeling I get in finding out new things.	6. (a) I learn English for the satisfied （满意的） feeling I get in finding out new things.
7. I learn English for the enjoyment I experience when I grasp a difficult construct in the second language.	7. (a) I learn English for the enjoyment I experience when I grasp a difficult

Original version	Adapted version
	construct （例如语法体系） in the second language.
8. I learn English for the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language.	8. (a) I learn English for the satisfaction （满意） I feel when I am in the process of accomplishing （完成） difficult exercises in the second language.
9. I learn English because I would feel guilty if I didn’t know a second language.	9. (a) I learn English because I would feel guilty （内疚的） if I didn’t know a second language.
10. I learn English because I enjoy the feeling of acquiring knowledge about the second language community and their way of life.	10. (a) I learn English because I enjoy the feeling of acquiring （获得） knowledge about the second language community and their way of life.

Appendix H. Revision for Identity Changes Questionnaire Items

Original version	Adapted version
1. I can easily switch between Chinese and English according to situational needs.	1. (a) I can easily switch （转换） between Chinese and English according to situational needs.
2. After learning English, I feel my behaviours have become somewhat Westernized.	2. (a) After learning English, I feel my behaviours have become somewhat （稍微，有点儿） Westernized.
3.I feel weird when my speech in Chinese is subconsciously mixed with English words.	3. (a) I feel weird （怪怪的） when my speech in Chinese is subconsciously （潜意识地，下意识地） mixed with English words.
4.After learning English, I find myself more sensitive to changes in the outside world.	4. (a) After learning English, I find myself more sensitive （感受到……的） to changes in the outside world (e.g., globalization).
5. With the improvement of my English proficiency, I can better appreciate the subtleties in Chinese	5. (a) With the improvement of my English proficiency （熟练，精通）, I can better appreciate （欣赏） the subtleties （微妙） in Chinese.
6. An instrument is an instrument. It is impossible for me to change into another person after learning a language.	6. (a) An instrument is an instrument （英语就是一种工具）. It is impossible for me to change into

Original version	Adapted version
	another person after learning a language.
7. I am relatively confident when speaking in English, and relatively modest when speaking in Chinese.	7. (a) I am relatively confident when speaking in English, and relatively modest （谦逊的，小心谨慎的） when speaking in Chinese. （当我用英语表意时，我的言语展现出西方文化自信的风格；当用汉语表意时，我的言语体现出汉文化的谦逊风格）。
8. As my ability of appreciating English literature and arts increases, I have become more interested in Chinese literature and arts.	8. (a) As my ability of appreciating （欣赏） English literature and arts （文学和艺术） increases, I have become more interested in Chinese literature and arts.
9. I prefer to listen to the original English dialogue when watching English movies, just as I enjoy the original Chinese dialogue when watching Chinese movies.	9. (a) I prefer to listen to the original English dialogue（原声的英语对话） when watching English movies, just as I enjoy the original Chinese dialogue （原声的中文对话） when watching Chinese movies.

Original version	Adapted version
10. I have an English name in addition to my Chinese name. They are used in different situations.	10. (a) I have an English name in addition to（除……之外，还有） my Chinese name. They are used in different situations.
11. With the improvement of my English proficiency, I feel my Chinese is becoming less idiomatic.	11. (a) With the improvement of my English proficiency （熟练，精通）, I feel my Chinese is becoming less idiomatic （语言地道的）.
12. After learning English, I have developed repugnance to some Chinese conventions.	12. (a) After learning English, I have developed repugnance （厌恶） to some Chinese conventions （传统，习俗）.
13. After learning English, I have become more understanding and can better communicate with others	13. (a) After learning English, I have become more understanding （通情达理的） and can better communicate with others.
14. When parting with foreign friends, I am frequently confused as to whether I should shake hands or hug or kiss.	14. (a) When parting with （分开） foreign friends, I’m frequently confused as to whether I should shake hands or hug and kiss.
15. I feel a painful split when I switch between English and Chinese behavioural patterns.	15. (a) I feel a painful split （自我身份分裂） when I switch （转换）

Original version	Adapted version
	between English and Chinese behavioural patterns （行为模式）.
16. No matter which language is used for expression, I remain to be myself.	16. (a) No matter which language is used for expression （表达我的想法）; I remain to be myself (Chinese) （我仍然是一个中国人）.
17. For me, it is meaningless to talk about personal changes after learning English.	17. (a) For me, it is meaningless （无意义的） to talk about personal changes after learning English.

Appendix I. Revision for L2 Motivational Self Questionnaire Items

Original version	Adapted version
1. I can imagine myself living abroad and having a discussion in English.	1. (a) I can imagine （想象） myself living abroad and having a discussion in English.
2. Learning English is necessary because people surrounding me expect me to do so.	2. (a) Learning English is necessary because people surrounding （周围的） me expect me to do so.
3. I have to learn English because I do not want to fail the English courses	3. (a) I have to learn English because I do not want to fail my courses.
4. I can imagine myself speaking English with international friends or colleagues.	4. (a) I can imagine （想象） myself speaking English with international friends or colleagues.
5. Studying English is important to me because English proficiency is necessary for promotion in the future.	5. (a) Studying English is important to me because English proficiency （熟练，精通） is necessary for promotion in the future.
6. Studying English is important to me in order to gain the approval of my peers/teachers/family/boss.	6. (a) Studying English is important to me in order to gain the approval （赞同，认同） of my peer/teacher/family /boss.
7. I can imagine myself speaking English as if I were a native speaker of English.	7. (a) I can imagine （想象） myself speaking English as if I were a native （本土的） speaker of English.

Original version	Adapted version
8. Whenever I think of my future career, I imagine myself using English.	8. (a) Whenever I think of my future career, I imagine （想象） myself using English.
9. Studying English is important to me, because I would feel ashamed if I got bad grades in English.	9. (a) Studying English is important to me, because I would feel ashamed （羞愧的） if I got bad grades in English.
10. Studying English is important to me in order to achieve a special goal (e.g. to get a degree or scholarship).	10. (a) Studying English is important to me in order to achieve （达到） a special goal (e.g. to get a degree or scholarship).
11. Studying English is important to me in order to attain a higher social respect.	11. (a) Studying English is important to me in order to attain （获得） a higher social respect.
12. I study English because close friends of mine think it is important.	Deleted due to redundancy.
13. Studying English is important because with a high level of English proficiency I will be able to make a lot of money.	Deleted due to ambiguous meaning of “making a lot of money”.
14. I imagine myself as someone who is able to speak English.	Deleted due to making no sense in the ESL context.
15. Studying English is necessary for me because I don’t want to get a poor score or	Deleted due to making no sense in an ESL context.

Original version	Adapted version
a fail mark in English proficiency tests.	
16. It will have a negative impact on my life if I don't learn English.	Deleted due to ambiguous meaning of "the negative impact".
17. The things I want to do in the future require me to use English.	Deleted due to the ambiguous meaning of "the things".
18. Studying English is important to me because, if I don't have knowledge of English, I'll be considered a weak student.	Deleted due to the ambiguous meaning of "knowledge" and "weak student".
19. Studying English is important to me because it offers a new challenge in my life.	Deleted due to the ambiguous meaning of "new challenge".
20. Studying English is important to me because other people will respect me more if I have a knowledge of English.	Deleted due to the ambiguous meaning of "a knowledge".

Appendix J. Ethics Approval for Semi-Structured Interview

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (UAHPEC)

21-May-2014

MEMORANDUM TO:

Dr. Gavin Brown

Learning, Development & ProfPrac

Re: Application for Ethics Approval (Our Ref. 011963): Approved

The Committee considered your application for ethics approval for your project entitled Foreign Language Motivational Self System among English Language Learners.

We are pleased to inform you that ethics approval is granted for a period of three years.

The expiry date for this approval is 21-May-2017.

If the project changes significantly, you are required to submit a new application to UAHPEC for further consideration.

If you have obtained funding other than from UniServices, send a copy of this approval letter to the Research Office, at ro-awards@auckland.ac.nz. For UniServices contracts, send a copy of the approval letter to the Contract Manager, UniServices.

In order that an up-to-date record can be maintained, you are requested to notify UAHPEC once your project is completed.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals. If you wish to do so, please contact the UAHPEC Ethics Administrators at roethics@auckland.ac.nz in the first instance.

Please quote reference number: 011963 on all communication with the UAHPEC regarding this application.

(This is a computer generated letter. No signature required.)

UAHPEC Administrators

University of Auckland Human Participants Ethics Committee

Appendix K. Ethics Approval for Survey Study

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (UAHPEC)

10-Aug-2015

MEMORANDUM TO:

Dr. Jason Stephens

Learning, Development & ProfPrac

Re: Application for Ethics Approval (Our Ref. 015462): Approved with comment

The Committee considered your application for ethics approval for your project entitled Second Language Motivational Self and Identity among Successful Chinese Learners of English. Ethics approval was given for a period of three years with the following comment(s):

Please provide a phone number (NOT a personal mobile number) as well as email option for the advert regarding stage 1.

The expiry date for this approval is 10-Aug-2018.

If the project changes significantly you are required to resubmit a new application to UAHPEC for further consideration.

In order that an up-to-date record can be maintained, you are requested to notify UAHPEC once your project is completed.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals if you wish to do so. Contact should be made through the UAHPEC Ethics Administrators at roethics@auckland.ac.nz in the first instance.

All communication with the UAHPEC regarding this application should include this reference number: 015462.

(This is a computer generated letter. No signature required.)

Secretary

University of Auckland Human Participants Ethics Committee

Appendix L. Descriptive Statistics for All Continuous Variables

Variable	*M*	*SD*	Range		Skew	Kurtosis
			Potential	Actual		
Intrinsic knowledge						
Q27	5.47	1.38	1-7	1.0-7.0	-1.07	1.14
Q30	5.52	1.28	1-7	1.0-7.0	-1.12	1.59
Q35	5.41	1.45	1-7	1.0-7.0	-1.23	1.42
Intrinsic accomplishment						
Q28	5.29	1.49	1-7	1.0-7.0	-0.98	0.70
Q31	4.46	1.64	1-7	1.0-7.0	-0.45	-0.57
Q32	4.92	1.53	1-7	1.0-7.0	-0.67	-0.05
Integrated regulation						
Q39	5.47	1.39	1-7	1.0-7.0	-1.22	1.53
Q41	5.95	1.19	1-7	1.0-7.0	-1.85	4.62
Q42	5.98	1.21	1-7	1.0-7.0	-1.87	4.68
Identified regulation						
Q26	6.11	1.15	1-7	1.0-7.0	-2.18	6.33
Q34	5.00	1.64	1-7	1.0-7.0	-0.82	-0.04
Q40	5.05	1.61	1-7	1.0-7.0	-0.88	0.13
Introjected regulation						
Q24	3.85	1.89	1-7	1.0-7.0	-0.02	-1.13
Q29	4.44	1.63	1-7	1.0-7.0	-0.33	-0.65
Q33	3.36	1.74	1-7	1.0-7.0	0.34	-0.83
External regulation						

Variable	*M*	*SD*	Range		Skew	Kurtosis
			Potential	Actual		
Q1	4.31	1.81	1-7	1.0-7.0	-0.33	-1.06
Q6	4.89	1.66	1-7	1.0-7.0	-0.64	-0.33
Q10	5.28	1.56	1-7	1.0-7.0	-0.99	0.45
Productive identity change						
Q46	4.93	1.47	1-7	1.0-7.0	-0.70	0.13
Q48	5.20	1.5	1-7	1.0-7.0	-0.87	0.28
Q51	4.49	1.54	1-7	1.0-7.0	-0.33	-0.47
Q56	4.93	1.4	1-7	1.0-7.0	-0.77	0.47
Additive identity change						
Q43	5.17	1.34	1-7	1.0-7.0	-0.89	0.41
Q50	4.23	1.63	1-7	1.0-7.0	-0.22	-0.70
Q52	5.94	1.28	1-7	1.0-7.0	-1.55	2.65
Q53	5.55	1.7	1-7	1.0-7.0	-1.41	1.08
Subtractive identity change						
Q44	4.91	1.38	1-7	1.0-7.0	-0.78	0.32
Q47	3.61	1.78	1-7	1.0-7.0	0.13	-1.09
Q54	4.02	1.90	1-7	1.0-7.0	-0.15	-1.16
Q55	2.93	1.77	1-7	1.0-7.0	0.57	-0.89
Split identity change						
Q45	4.34	1.60	1-7	1.0-7.0	-0.17	-0.79

Variable	*M*	*SD*	Range		Skew	Kurtosis
			Potential	Actual		
Q57	3.78	1.7	1-7	1.0-7.0	0.08	-0.88
Q58	3.06	1.71	1-7	1.0-7.0	0.70	-0.42
Q59	3.51	1.66	1-7	1.0-7.0	0.27	-0.76
Zero change						
Q49	4.48	1.74	1-7	1.0-7.0	-0.34	-0.88
Q60	6.00	1.31	1-7	1.0-7.0	-1.72	3.16
Q61	3.82	1.8	1-7	1.0-7.0	0.17	-1.04
Q62	4.05	1.86	1-7	1.0-7.0	0.04	-1.06
Ideal L2 self						
Q4	5.82	1.27	1-7	1.0-7.0	-1.61	2.87
Q8	5.81	1.25	1-7	1.0-7.0	-1.58	3.01
Q16	5.11	1.61	1-7	1.0-7.0	-0.78	-0.17
Q18	5.45	1.48	1-7	1.0-7.0	-1.25	1.17
Ought-to L2 self						
Q5	4.58	1.76	1-7	1.0-7.0	-0.44	-0.82
Q9	4.27	1.73	1-7	1.0-7.0	-0.24	-0.77
Q13	5.13	1.57	1-7	1.0-7.0	-0.85	0.12
Q19	4.73	1.74	1-7	1.0-7.0	-0.60	-0.54
Dreaded L2 self						
Q3	5.27	1.72	1-7	1.0-7.0	-0.88	-0.24
Q14	5.84	1.43	1-7	1.0-7.0	-1.65	2.58
Q17	4.14	1.75	1-7	1.0-7.0	-0.21	-0.99
Q23	5.57	1.44	1-7	1.0-7.0	-1.24	1.36

Variable	*M*	*SD*	Range		Skew	Kurtosis
			Potential	Actual		
Q25	5.68	1.43	1-7	1.0-7.0	-1.46	2.02
Instrumentality promotion						
Q2	6.05	1.25	1-7	1.0-7.0	-1.85	3.80
Q11	5.67	1.44	1-7	1.0-7.0	-1.39	1.78
Q15	6.04	1.22	1-7	1.0-7.0	-1.89	4.31
Q21	5.50	1.49	1-7	1.0-7.0	-1.14	0.90
Q22	4.94	1.56	1-7	1.0-7.0	-0.73	-0.06
Instrumentality prevention						
Q7	5.22	1.65	1-7	1.0-7.0	-0.87	0.01
Q12	5.06	1.68	1-7	1.0-7.0	-0.80	-0.20
Q20	4.29	1.74	1-7	1.0-7.0	-0.25	-0.92
Social responsibility						
Q36	3.85	1.88	1-7	1.0-7.0	-0.04	-1.19
Q37	4.10	1.88	1-7	1.0-7.0	-0.15	-1.03
Q38	4.69	1.77	1-7	1.0-7.0	-0.60	-0.54

Appendix M. L2 Regulatory Styles Revised Adaptive Model Items Descriptive Statistics

L2RS revised adaptive model factor and items	Item loading
Intrinsic knowledge (*M=5.46, SD=1.17, α=.81*)	
Q27 I learn English for the pleasure that I experience in knowing more about the literature of the second language group.	.65
Q30 I learn English for the satisfied （满意的） feeling I get in finding out new things.	.69
Q35 I learn English because I enjoy the feeling of acquiring （获得） knowledge about the second language community and their way of life.	.64
Intrinsic accomplishment (*M=4.89, SD=1.55, α=. 80*)	
Q28 I learn English for the pleasure I experience when surpassing （超越） myself in my second language studies.	.56
Q31 I learn English for the enjoyment I experience when I grasp a difficult construct （例如语法体系） in the second language.	.66
Q32 I learn English for the satisfaction （满意） I feel when I am in the process of accomplishing （完成） difficult exercises in the second language.	.73
Integrated regulation (M=5.83, SD=1.24, α=.80)	
Q26 I learn English because I think that it is good for my personal development.	.57
Q39 I learn English well to integrate （融入） into the Western societies.	.56
Q41 I learn English well to promote my academic success.	.60
Q42 I learn English well to promote my professional （职业的） development.	.72

L2RS revised adaptive model factor and items	Item loading
Identified regulation (*M=5.03, SD=1.50, α=.84*)	
Q34 I learn English because I choose to be the kind of person who can speak a second language.	.72
Q40 I learn English because I choose to be the kind of person who can speak more than one language.	.72
Introjected regulation (M=3.88, SD=1.75, α=.76)	
Q24 I learn English to show myself that I am a good citizen (i.e., Chinese citizen) because I can speak a second language.	.61
Q29 I learn English because I would feel ashamed （羞愧的） if I couldn't speak to my friends from the second language community in their native tongue.	.57
Q33 I learn English because I would feel guilty （内疚的） if I didn't know a second language.	.61
External regulation (M=4.83, SD=1.68, α=.71)	
Q1 I learn English because I have the impression （想法） that it is expected of me.	.35
Q6 I learn English in order to get a more prestigious （受人尊敬的） job in the future.	.59
Q10 I learn English in order to have a better salary in the future.	.67

Appendix N. L2 Identity Changes Original Trimmed Model Items Descriptive Statistics

L2IC original trimmed model factor and item	Item loading
Productive identity change (*M=5.02, SD=1.46, α=.64*)	
Q46 After learning English, I find myself more sensitive （感受到…… 的） to changes in the outside world (e.g. globalization).	.47
Q48 With the improvement of my English proficiency （熟练，精通）, I can better appreciate （欣赏） the subtleties （微妙） in Chinese.	.41
Q56 After learning English, I have become more understanding （通情达理的） and can better communicate with others.	.49
Additive identity change (M=5.22, SD=1.49, α=.55)	
Q43 I can easily switch （转换） between Chinese and English according to situational needs.	.38
Q50 I am relatively confident when speaking in English, and relatively modest （谦逊的，小心谨慎的） when speaking in Chinese.	.32
Q52 I prefer to listen to the original English dialogue （原声的英语对话） when watching English movies, just as I enjoy the original Chinese dialogue when watching Chinese movies.	.36
Q53 I have an English name in addition to （除……之外，还有） my Chinese name. They are used in different situations.	.31
Subtractive identity change (M=3.48, SD=1.55, α=.58)	
Q54 With the improvement of my English proficiency （熟练，精通）, I feel my Chinese is becoming less idiomatic （语言地道的）.	.41

L2IC original trimmed model factor and item	Item loading
Q55 After learning English, I have developed repugnance （厌恶） to some Chinese conventions （传统，习俗）.	.41
Split identity change (M=3.67, SD=1.67, α=.73)	
Q45 I feel weird （怪怪的） when my speech in Chinese is subconsciously （潜意识地，下意识地） mixed with English words.	.31
Q57 When parting with （分开） foreign friends, I' m frequently confused as to whether I should shake hands or hug and kiss.	.49
Q58 I feel a painful split （自我身份分裂） when I switch （转换） between English and Chinese behavioural patterns （行为模式）.	.65
Q59 After learning English, I'm often caught between contradicting values and beliefs.	.64
Zero change (M=4.12, SD=1.80, α=.68)	
Q49 An instrument is an instrument （英语就是一种工具）. It is impossible for me to change into another person after learning a language.	.36
Q61 I have not felt any change in myself after learning English.	.60
Q62 For me, it is meaningless （无意义的） to talk about personal changes after learning English.	.55

Appendix O. L2 Motivational possible selves Revised Trimmed Model Items Descriptive Statistics

L2MS revised trimmed model factor and item	Item loading
Ideal L2 self (M=5.55, SD=1.12, α=.81)	
Q4 I can imagine （想象） myself living abroad and having a discussion in English.	.69
Q8 I can imagine （想象） myself speaking English with international friends or colleagues.	.72
Q16 I can imagine （想象） myself speaking English as if I were a native （本土的） speaker of English.	.52
Q18 Whenever I think of my future career, I imagine （想象） myself using English.	.59
Ought-to L2 self (M=4.42, SD=1.56, α=.75)	
Q5 Learning English is necessary because people surrounding （周围的） me expect me to do so.	.59
Q9 I consider learning English important because the people I respect think that I should do it.	.59
Dreaded L2 self (M=5.70, SD=1.14, α=.71)	
Q14 I worry that if I did not speak English well, I would not fit into （融入） the western society.	.55
Q23 I worry that if I did not study English well, I would not be able to communicate with my future employer and colleagues.	.58
Q25 I worry that if I did not study English well, I would not meet the academic （学业的，学术的） requirements of the university.	.47

L2MS revised trimmed model factor and item	Item loading
Instrumentality promotion sub-factor (M=5.82, SD=1.05, α=.78)	
Q2 Studying English can be important to me because I think it will someday be useful in getting a good job.	.60
Q11 Studying English is important to me because English proficiency （熟练，精通） is necessary for promotion in the future.	.61
Q15 Studying English can be important to me because I think I'll need it for further studies.	.57
Q21 Studying English is important to me in order to achieve （达到） a special goal (e.g. to get a degree or scholarship).	.55
Instrumentality prevention (M=5.15, SD=1.56, α=.86)	
Q7 I have to learn English because I don't want to fail my courses.	.75
Q12 I have to study English because I don't want to get bad marks.	.75
Social responsibility (M=4.22, SD=4.59, α=.77)	
Q36 Only when I have a good command of English （学好英语，掌握这门语言） can I live up to （达到） the expectations of my parents.	.47
Q37 Only when I have a good command of English can I contribute to （出一份力） China's prosperity （富强） well.	.71
Q38 I learn English in order to let the world know more about China.	.66