

Possible Selves, Vision, and Dynamic Systems Theory in Second Language Learning and Teaching

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Thesis submitted to the University of Nottingham

For the degree of Doctor of Philosophy

June 2014

Abstract

The key purpose of this thesis was to study how vision and possible selves motivate second language (L2) learners in their learning, and the way non-linear and dynamic patterns are exhibited in motivated L2 behaviours. The thesis consists of four studies that investigated the motivation of different target populations (secondary and university learners, and Christian Language Professionals) by using a variety of research methodologies, including retrodictive qualitative modelling (RQM), mixed methods approach, qualitative in-depth interviews and intervention.

In Studies I and IV, the motivational trajectories of secondary school students and Christian Language Professionals were explored through the lens of dynamic systems theory (DST). In Study I, using retrodictive qualitative modelling (RQM), in which the conventional research data collection methodology was reversed, the results showed that seven learner archetypes exist in the teachers' minds, and different unique motivational trajectories known as *signature dynamics* (with different combinations of attractor states) are present in the learners' systems. The strength and weaknesses in applying the RQM model were identified. Study IV explored the developments of vision in four CLP through in-depth interviews and three different vision integration patterns were revealed: 'fully integrated as a person', 'fully integrated Ideal CLP Self', and 'partially integrated CLP Self'.

Study II examined the interrelationships among various sensory capacities (visual and auditory), imagery capacities, future self-guides and criterion measures in two target languages (English and Mandarin) in 172 Year-8 secondary school students in Hong Kong. Using both questionnaires and post-survey focus group

interviews, it was found that learners' future self-guides are endowed with visual, auditory and imagery capacities as the main components. Study III investigated the effects of an imagery-training intervention on the quantitative and qualitative change of possible L2 self-guides in 80 second-year science university students. A significant increase in the Ideal L2 Self and a significant decrease in the Feared L2 Self were shown, which suggested that the intervention has positive effects on learners' future self-guides.

In summary, the results from the collection of studies showed the different characteristics, effects, and motivational forces of vision and possible selves in the complex world of L2 learning and teaching. Along with the insights of the complex dynamic interplay between the factors in L2 learning and teaching, I have built a strong case for vision and possible selves as key motivational tools in the L2 classroom.

Acknowledgements

I would like to express my deepest gratitude to different people who have supported me throughout the past four years of my doctoral studies in Nottingham. First and foremost, I am deeply indebted to my supervisor Professor Zoltán Dörnyei, who has been a wonderful mentor and a role model throughout my studies. Not only has he given me the guidance I needed to complete my degree, he has also opened up invaluable opportunities for me to publish (with him and with others) and to present at various international conferences. As a role model, Zoltán has been most inspirational. With his passion, unflagging commitment and ‘can-do’ spirit, he has shown me what it takes to be an excellent scholar, and what it means to be an empathetic, kind person. He has been most encouraging as he helps me build up my strength and gives me constructive advice where improvements are required. Without him, my doctoral studies would not have materialised.

I would also like to thank my friends whom I met in Nottingham, including Annie Wenjuan Yuan, Anne Liu, Christine Muir, Eric Lin, Freerkien Waninge, Hilde van Zeeland, Julia You, Kavitha Ganesan, Klaudia Lee, Pawel Sudarski, Ruoxin Wei, Wipapan (Jib) Nganpragmuan, Yaxiao Cui and Zana Ibrahim. I have thoroughly enjoyed their company and the time when we travel, relax, talk about our dreams and discuss academic matters. Their passion in research has been most inspiring and their friendships have certainly made my time in Nottingham memorable.

I would like to acknowledge my Christian friends in Nottingham who have been a great support during this time and they include Debbie Dickson, Dorothy and Arthur May, Georgina Phillips, Lily Xin Yue, Matthew and Hayley Vosper, Miriam

Knight, Peter Bryant, and Sarah and Catalyn Cantana. I deeply treasure their friendships and the good times we spent. I would also like to thank Andrew Barden and Paul Tognarelli for being good friends and housemates, for their warm support and encouragement during my writing-up period. I wish to make a special note of two of my dear friends in Hong Kong, Catherin Sin and Ingrid Leung, who have prayed with and for me during the past four years, and to my beloved, longtime friends Bernita Lee, Nana Chan, Pauline Mak, Phoebe Lin and Yolanda Lam for their love and encouragement, and for keeping me accountable.

My deep gratitude also goes to Alastair Henry, Julia You and Michael Magid for the opportunity to publish with them. They have been a tremendous help to me and I have gained invaluable research insights through working with each of them. Thanks go to Carol Fung, David Gardner and Joanna Lee for the help they have provided in my studies. Special thanks go to all the participants who provided valuable insights into the use of possible selves, vision and dynamic systems theory.

I am most grateful to my family who have always been there for me throughout the several years during which I worked on my thesis. I would like to thank my mother Rowena who has taken a special interest in my work, who often has insightful discussions with me, who has encouraged me and believed in me. I thank my father K. K. Chan who has been a great support in every way, who has cheered me on with his philosophies of life, and also my dear sister Betty Chan, who often says she misses me.

Finally, I give thanks to God who has protected me throughout these years and who has brought me nearer to Him. I am thankful for all the amazing people I have met and worked with, the great learning that has taken place, and the good times I have spent in Nottingham.

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List of Abbreviations

CLPs	Christian language professionals
DS	dynamic systems
DST	dynamic systems theory
ELT	English language teaching
EMI	English as a medium of instruction
ESP	English for specific purposes
L2	second language
RQM	retrodictive qualitative modelling
SLA	second language acquisition

Chapter 1

Introduction

In second language (L2) learning, it is not unusual for some learners to be more driven than others. Motivated students may set a specific time to review their studies and may find different ways to practise the language. They chart their progress, evaluate their strategies, and regenerate positive emotions even in the face of setbacks. Based on the definition of motivation provided by Dörnyei and Ushioda (2011), we can say that such individuals have made a *choice* of a particular action (i.e. L2 learning), have *persisted* with it, and expended the *effort* on it. The key is that these people usually have a very clear and vivid vision of who they would like to be in the future; and this vision compels them to stay persistent and to exert the effort required. Following this line of thought, the focus of the thesis is to explore how L2 learners and language professionals (LP) are motivated by their *vision* and *possible selves*, and to examine their motivational change through the lens of dynamic systems theory (DST).

1.1 Key conceptual theoretical frameworks employed in the thesis

L2 motivation research has witnessed a growing interest in examining the ‘relationship between motivation and *identity* in specific social contexts’ (Dörnyei & Kubanyiova, 2014, p. 33, the emphasis theirs). A key theoretical construct related to this area is ‘The L2 Motivational Self System’ (Dörnyei, 2005, 2009a), which is drawn from the theory of possible selves (Markus & Nurius, 1986) in social psychology. The constructs of possible selves are mental representations of what

people think they *would like* to become, what they think they *could* become or what they are *afraid of* becoming in the future. Closely associated with possible selves are vision and mental imagery as possible selves can be seen as ‘visions of an individual’s future selves’ (Oyserman & James, 2009, p. 373). Individuals with a very clear and vivid vision of who they would like to be in the future can stay persistent in their endeavours. They are able to take actions to achieve different goals, are highly disciplined and are focused on the task at hand. Despite the fact that vision and imagery have been widely investigated in other fields such as sport psychology (e.g. Martin & Hall, 1995; Martin, Moritz, & Hall, 1999; Morris, Spittle, & Watt, 2005), revealing moderate degree of effectiveness in performance and motivation (Cumming & Ste-Marie, 2001; Gregg & Hall, 2006), relatively little has been explored in the field of second language acquisition (SLA) (Dörnyei & Kubanyiova, 2014).

In addition to possible selves and vision, dynamic systems theory was also employed in the thesis as it is seen as an overarching theoretical framework that explains complexities in the world. Applied linguists are recognising the limitations of traditional quantitative research methods in explaining the phenomena of a complex world. Although research endeavours have been directed towards a greater understanding of the nonlinear, dynamic processes of second language development (e.g. Csizér, Kormos, & Sarkadi, 2010; Jessner, 2008), such an approach is still in its infancy and is difficult to operationalise. Exploring L2 motivation through the lens of DST will avoid over-simplifying the world by focusing on fragments of reality and can help embracing the wholeness and complexity of the world instead. Complexity theory can ‘[offer] us new ways of conceptualizing and perceiving,

changing our “objects of concern” into processes, change, and continuities’ (Larsen-Freeman & Cameron, 2008, p. 7).

In summary, this thesis is a marriage between theories in psychology and concepts in L2 motivation, and it focused on three key areas, including possible selves, vision and dynamic systems theory. Here it is worth emphasising that a major focus of the thesis is L2 motivation, which is of great relevance in the society as learning second or foreign languages is a matter that concerns most people in the modern world. Indeed, education ministers are called to promote language learning and multilingualism (Council of Europe, 2001). As English is growing to become a lingua franca, young people in different parts of the world may find themselves learning one or more second or foreign languages, and the way L2 motivation works both in and beyond the classroom is of vital importance. Investigating this topic will provide insights into the pedagogical suggestions for frontline teachers.

1.2 Organisation of the thesis

This thesis is organised into three sections covering (i) a literature review, (ii) four empirical studies, and (iii) a discussion and conclusion. Section One begins by presenting the literature on possible selves (Chapter 2), vision (Chapter 3) and dynamic systems theory (Chapter 4). In these chapters, I will focus on individual topics and the relevant studies in L2 motivation. Methodological considerations for each area will also be discussed (Chapter 5). Section Two is the largest part which incorporates four empirical studies that explored the theories from different perspectives.

This work offers a new approach to a thesis organised according to four relatively independent studies, each self-contained and has been published as an independent piece. While this would suggest some disjointed work, the four studies fall into a broader pattern, and although they used very different methodologies, each of them concerns the *self*. The guiding hypothesis my research has been that human behaviour and human engagement with language can be best understood through examining the individual's self, a topic originally developed in social psychology under the rubric of 'possible selves research' (and will be described in the literature review in Section 2.2).

To take the four studies in a chronological order, the first study looked at the validation of the importance of the self through the treatment of an intervention study. My original idea was that if the self had such a crucial role in motivating learners and affecting their language learning dispositions, then this could be demonstrated by promoting the self and examining whether any focused self-enhancing treatment produced any improvements in students' learning-related motivation and imagery. The investigation I conducted shows unambiguously that this is indeed the case, evidencing that the self plays a significant role in underlying motivation.

The initial observation and validation of the significance of self and imagery raised the question of how strong was the strength of the relationship between various imagery variables, motivational factors and performance measures. In order to test the valency of these relationships in an objective manner, a quantitative survey was used which included a variety of related variables –sensory styles, imagery capacity, various future self-guides, and criterion measures –and was administered in a context where two important, ethnolinguistically vital languages

(English and Mandarin) were studied in a parallel manner so that I could also compare the L2-specific dispositions related to them. This study produced unequivocal evidence that imagery forms an important part of motivational future self-guides, which justifies the use of vision to refer to this motivational dimension, defined as the integration of abstract, higher-ordered goals with an experiential element (i.e. the imagery). A further important finding of the study involved establishing objective links between vision and both intended and actual L2 learning performance.

Once I have established the validity of self-imagery and its relationships to performance and behaviour, a logical next step was to look at the dynamics of this relationship. It is clear that although imagery plays an important role in energising vision, the strength of this relationship fluctuates in learners depending on various other environmental circumstances and conditions. To look at the dynamic evolution of future self-guides, I adopted a cutting-edge research paradigm, Dynamic System Theory, and within this paradigm a specific research template suggested by Zoltán Dörnyei (2014): ‘Retrodictive Qualitative Modeling’. This involves a principled qualitative investigation of specially-selected L2 learners, looking at their motivational evolution and their visionary mindsets. In many ways, this has been the most substantial study in my thesis, because besides examining motivation related issues, it also offers a pioneering venture into a new methodological area. The study produced interesting results both in terms of the learners’ motivational dynamics and how we can empirically examine such a dynamic setup. Accordingly, in the summary of this chapter, I will talk about both motivational and methodological findings.

Finally, I conducted a purely qualitative study to examine one specific but central question about the self and future self-guides, which is rarely asked in the literature: how does one's academic self relate to one's non-academic or non-subject-matter-based self dimension? The three previous studies only focused on the language learning self dimension, but we know that this dimension interacts somehow with various social and personal aspects of individuality, which also have their own self dimensions. My last study aimed at examining how personal and professional selves co-exist within a person. For the personal dimension, I chose religious self-images as this is one of the most personal, most private self-dimension of a believer. For the professional side, I chose the academic self-dimension associated with applied linguistics and I selected established professionals to be my participants to ensure the robustness of the established dimension. The main research questions of the study focused on how and to what extent two distinct aspects of one's self can co-exist to produce harmonious and productive life. The results identified various degrees of integration and pointed to the conclusion that a person can reach maximum performance if the separate self dimensions operate in harmony with each other.

In sum, my thesis can be seen as four different probes into the broad area of the 'acting self', that is, the self dimension which determines human behaviour (Cantor, 1990). The investigations follow three different research methodologies, but as will be shown in the concluding chapter of the thesis, the findings are compatible with each other, while also reinforcing each other. Such a varied methodological approach also gave me the opportunity to master different research techniques, which I will be able to utilise in my future career.

Part One: Literature Review

Chapter 2

Possible Selves and L2 Motivation

‘Dream lofty dreams, and as you dream, so shall you become. Your Vision is the promise of what you shall one day be. Your Ideal is the prophecy of what you shall at last unveil.’

— James Allen

2.1 Introduction

In this chapter, I focus on possible selves theory, particularly its characteristics, motivational functions and optimum conditions. In the second part of the chapter, I present a related theoretical construct of ‘The L2 Motivational Self System’ (Dörnyei, 2005, 2009a) and the relevant studies.

2.2 Possible selves

The theory of possible selves, proposed by Markus and Nurius (1986), has been fascinating for psychologists and the theory has brought forth numerous empirical studies. Possible selves are cognitive components of the self-concept that are future-oriented; they are ‘cognitive manifestation of enduring goals, aspirations, motives, fears and threats’ (Markus & Nurius, 1986, p. 954). In other words, they include a person’s knowledge of his/her hopes, fears, plans, goals, potential and future. There are different facets of possible selves, including the selves people *could* become, *would like* to become or are *afraid* of becoming. They could be comprised of the hoped-for selves, such as ‘the successful and accomplished professional self, the witty, creative self, or the loved and admired self’, and the selves that are dreaded, including the ‘bag lady self’ (Cantor, Markus, Hiedenthal, & Nurius, 1986, p. 99).

As these self-guides are associated with the future rather than the current states, they are essentially imaginative selves with a heavy element of fantasy (Segal, 2006).

Markus and Nurius (1986) have depicted the features and characteristics of possible selves which included the constructs tying to the *present and past selves*; they are individualised and socialised; they are unstable and are vulnerable to change; they vary in elaboration and vary in valence; and they are linked to specific plans and behavioural strategies.

A framework that is closely intertwined with the theory of possible selves is *self-discrepancy theory* (Higgins, 1987), which consists of three key components: the actual self, the ideal self, and the ought self (all of which are also known as *future self-guides*). A key element of this theory is related to the *standpoints* or *perspectives* of another person, as depicted in the definitions of the three selves are as follows:

- The actual self is defined as a person's representation of the attributes that someone (oneself or another) believes you actually possess;
- The ideal self is a person's representation of the attributes that someone (yourself or another) would like you to possess;
- The ought self is a person's representation of the attributes that someone (yourself or another) believes you should possess.

Higgins (1987) advocates that different types of self-discrepancies exist as people compare their actual self and their ideal self or ought self, predicting the types of negative emotions that occur as a result. For example, the discrepancies between the actual self and the ideal self may result in the absence of positive outcomes and would therefore be linked with dejection-related emotions such as disappointment or dissatisfaction. On the other hand, the gaps between the actual self and the ought self

denote the presence of negative outcomes and is therefore associated with agitation-related emotions such as fear or threat. All in all, a key difference between self-discrepancy theory (Higgins, 1987) and possible selves theory (Markus & Nurius, 1986) possible selves mainly derives from the construct of selves: the former see self as a single construct with many different facets embodied whereas the latter see that a person could have many different representation of selves (Dörnyei, 2009a).

2.2.1 Motivational mechanisms of possible selves

It is essential not only to understand the contents and features of possible selves but to comprehend *how* possible selves are translated into relevant goal-oriented behaviours. Researchers have proposed several motivational mechanisms or reasons as to how people can be motivated by accessing these mental representations. In the original concept when possible selves theory was first proposed, it was suggested that the construct can act as a regulator which directly influences behaviours. The mechanisms in translating possible selves into actions depend on whether these self-representations are employed in one's *working self-concept*, which is 'the set of self-conceptions that are presently active in thought and memory' (Markus & Nurius, 1986, p. 957). In other words, not all contents of possible selves are available in a person's mind at any one time. The ideas or images related to a particular future self-guide are made salient by the immediate social context. When the possible selves are recruited into and become active in the working self-concept, they, in turn, have a powerful motivational function on the current self representation (Markus & Kunda, 1986; Markus & Nurius, 1986). Likewise, a possible self which is not activated in one's working self-concept does not have an impact on one's current self and subsequent behaviour.

Since the concept of possible selves was proposed by Markus and Nurius (1986), Markus and associates expounded the link between possible selves and current behaviours (e.g. Markus & Ruvolo, 1989; Oyserman & Markus, 1990; Ruvolo & Markus, 1992). A key idea is that individuals are motivated when they have an image of their ideal self engaging in the desirable behaviours, which raises awareness of the cues that are related to goal-attaining behaviours (Hoyle & Sherrill, 2006). Other embellishments of the theory have been incorporated in the later work, including the fact that possible selves are most likely to motivate behaviours that are in line with associated self-representations or cognitions (Oyserman, Bybee & Terry, 2006).

Considering the original and extended concept of the possible selves theory, Hoyle and Sherrill (2006) have recognised a limitation and have proposed to apply the construct in the control-process models of self-regulation (e.g. Carver & Scheier, 1981; Hoyle & Sowards, 1993). Instead of viewing possible selves as a direct mediator of behavioural change, the construct is seen as a vital constituent by which behaviour is regulated. In the control-process models of self-regulation possible selves are seen as behavioural standards such as goals (Boldero & Francis, 2002), personal projects (Little, 1983), personal strivings (Emmons, 1986) and self-guides (Higgins, 1987). Behavioural standards are ‘points of comparison’ between current experience and desirable future behaviour at that moment (Carver & Scheier, 1981; cited in Hoyle & Sherrill, 2006, p.1682). In this case, possible selves ‘give rise to behavioural standards against which current self-representation is compared and with which it is reconciled through behaviour’ (Hoyle & Sherrill, 2006, p. 1687). The motivational pathways of possible selves is further elaborated and supported by vanDellen and Hoyle (2008), who advocate that possible selves can elicit self-

regulatory behaviour because they increase the end accessibility and desirability of behavioural responses (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Troetschel, 2001).

Self-regulation is not only activated through the comparison between possible selves and current selves, it is also involved in the self-revision of possible selves. Carroll, Shepperd and Arkin (2009) have investigated downward self-revision; that is, how individuals revise and lower the standards of their possible selves in the face of threats and fall of expectations. They advocate that external threats – mediated by self doubts, rising anxiety and fall of expectations – will have a negative impact on the self-revision of one's possible selves. In addition, they predict that the likelihood of a downward revision of possible selves will increase when threats are fully specified, illuminating the 'meaning or implications, of an undesired discrepancy, i.e., into the vivid prospect of an alternative undesired self as more likely than the desired self if the person continues to pursue the desired self' (Carroll et al., 2009, p. 550).

2.2.2 Motivating conditions of possible selves

Despite the fact that some of the optimal conditions have been mentioned bypassing in the previous section, we cannot emphasise enough the importance of the different requirements as to how possible selves can exert motivational impact upon a person. These conditions include: validating possible selves by seeking evidence; keeping possible selves active in working self-concept; having possible selves that feel psychologically close; creating possible selves that are elaborated, clear and possible; accompanying possible selves with strategies and roadmaps;

counterbalancing possible selves with the feared selves; and having a gap between the current self and possible selves. These conditions are elaborated as follows:

- ***Validate the possible selves by seeking evidence.*** As possible selves are unstable and malleable, these mental representations are therefore not ‘verified or confirmed by social experience’ (Markus & Nurius, 1986, p. 955). It is important to endorse these possible selves by identifying evidence of probability or even possibility of success (Wurf & Markus, 1991; Granberg, 2006). If not, individuals may have to revise their possible selves according to the feedback received in the environment (Carroll et al., 2009).
- ***Keeping possible selves active in working self-concept.*** According to Oyserman and Destin (2010), the structures in a person’s working self-concept at any one point are more likely to influence a person’s feelings and actions than those that are not accessible in the working self-concept.
- ***Having possible selves that feel psychologically close.*** Temporal self-appraisal (TSA) theory suggests that individuals view their future selves in varying psychological distance, which can influence a person’s motivation and decisions. For instance, when a proximal future seems psychologically more looming and significant, people will be more motivated than when the future selves that feel psychologically distant (Wilson & Ross, 2000, 2001). This could be linked to the fact that representations of the self at a distant-future time point are more abstract and structured than are representations of the self at a near-future time point (Wakslak, Nussbaum, Liberman, & Trope, 2008).

- ***Creating possible selves that are elaborated.*** Possible selves that are well-elaborated and salient are more motivating (Markus & Nurius, 1986; Markus and Ruvolo, 1989; Oyserman, Bybee, Terry, & Hart-Johnson, 2004). For example, for people who are aspiring to become an academic, having an elaborated possible selves means that they do not only have an abstract goal of ‘becoming a university teacher’, but it may be elaborated with different possible scenarios including seeing oneself giving lectures, publishing articles and supervising PhD students.
- ***Creating possible selves that are clear.*** Concrete conceptions of possible selves are needed for people to identify the actions required toward achieving their goals (Wurf & Markus, 1991). Research has confirmed that thinking clearly about one’s future self induces better psychological functioning (e.g. leading to higher positive states such as optimism) and greater psychological closeness to hoped-for self (McElwee & Haugh, 2010).
- ***Developing possible selves that are possible.*** Possible selves can act as predictors of the probable future outcomes or outcome expectancy, as they include ‘ideas about what is possible for the individual to be, to think, to feel, to experience, or to be perceived as, and as such, they provide end states to strive for or to avoid’ (Cantor et al., 1986, p. 99). These constructs may elucidate the opportunities people perceive to be available as well as the expectations they have for themselves, accessing the potential of the *self*. More importantly, in order for the future self-guides to have motivational power, they must be perceived to be plausible and should be within one’s reach (Oettingen & Thorpe, 2006).

- ***Accompanying possible selves with strategies and roadmaps.*** In order for a person's possible selves to have self-regulatory effects, having images of goals or desired end-states is insufficient; it is ideal for possible selves to be tied in with a concrete plan so that individuals will have *very clear plans* or *roadmaps* as to what they can do next (Higgins, 1996). Possible selves with self-defining goals and specific behavioural strategies are called self-regulatory possible selves as they are most likely to influence behaviour. These are contrasted with self-enhancing possible selves which merely evokes positive feelings about self (Hoyle & Sherrill, 2006).
- ***Counterbalancing possible selves with feared selves.*** The motivational functions of possible selves can be maximised when it is 'offset or balanced by a countervailing possible self *in the same domain*' (Oyserman & Markus, 1990, p. 146). This means that when hoped-for possible selves are associated with the feared selves, there will be an emphasis on the possible scenarios that could happen if the desired goal is not fulfilled. The feared selves could become 'powerful negative incentives' for individuals (Cantor et al., 1986, pp. 107-8).
- ***Having a gap between the current self and the possible selves.*** In order for possible selves to influence behaviour, there should be a discrepancy between current and possible selves. Research has suggested that comparing current self against possible self is a mechanism for possible selves to induce actions (vanDellen & Hoyle, 2008).

2.2.3 Possible selves and academic achievements

Researchers have investigated the relationship between possible selves, academic performance and motivation (Anderman, Anderman, & Griesinger, 1999; Leondari, Syngollitou, & Kiosseoglou, 1998; Leondari & Gonida, 2008), confirming academic-related possible selves to be positively associated with persistence on academic tasks (Leondari & Gonida, 2008). Positive possible selves were linked with improved GPA (Anderman et al., 1999; Oyserman et al., 2006) and higher probability to have performance goals and a desire to study in order to prove their competence (Anderman et al., 1999).

Such findings also ring true in high risk, poverty-stricken communities (Oyserman et al., 2006). Although the deprived socio-economic environment was generally viewed as a risk factor, it could be a source of motivation for some underprivileged youngsters as they were motivated to develop and change for the better, striving hard to avoid their feared possible selves (Kloep, Hendry, Gardner, & Seage, 2010).

Because failures in academic outcomes are common among low-income, racial-ethnic minority groups, interventions have been conducted to investigate whether activities focusing on developing the positive possible selves of underprivileged students would promote better academic achievements (Kaylor & Flores, 2007; Oyserman, Brickman, & Rhodes, 2007; Oyserman et al., 2006; Oyserman, Coon, & Kemmelmeier, 2002). In particular, Oyserman and Destin (2010) propose an identity-based motivation (IBM) model, which has accentuated the importance of self-concepts on students' intention to study, their in-class and out-of-class academic behaviours and school achievements. An intervention known as School-to-Jobs (STJ) was developed, aiming to influence at-risk children's self-perceptions of what is possible and likely for them in the future. The participants

were predominately African American and Latino children who were from low socioeconomic class and high-employment communities. The programme included tasks eliciting students' positive academic-related identities, selecting adult models, locating positive resources, identifying obstacles and articulating specific strategies to attain these identities. Beneath the surface of these tasks were meta-messages such as 'we all care about school', 'everyone has possible identities', 'everyone faces obstacles and difficulties, but this does not make the possible identities less part of the "true" self', and 'the future starts now' (Oyserman & Destin, 2010, p. 1027).

Following the outcomes of the intervention participants over two academic years, the results showed that they increased the number of possible selves identities, which were positively linked with strategies and academic behaviours (i.e. longer time spent doing homework, more in-class initiative taking, less disruptive behaviour and improved academic outcomes). In the contrary, low parent involvement in school observed in the control group was linked with children's worsening grades, poorer attendance and behaviour. These results suggested that a change in children's positive identities and strategies had a significant impact on their academic outcomes and behaviours.

There are other similar programs such as one conducted by Hock, Deshler, and Schumaker (2006), who guided students to contemplate their hopes, expectations and fears for the future. The students were prompted to reflect on their future roles and to create a Possible Selves Tree (i.e. a drawing that represents one's hoped-for and expected selves) and to consider how these selves could be achieved. The use of possible selves results in higher academic performance, better retention rates and increased graduation rates for university student-athletes than those in the control group.

2.2.4 The methodology in researching possible selves

Regarding the methodology in the research of possible selves in psychology, having reviewed 141 empirical articles, Packard and Conway (2006) have found four groups of methodology including the predominant methodology that involves structured surveys and interviews (64%), and the less frequently used methodologies such as narrative (27%), visual (4%) and drama (5%). Regarding the primary method, the construct of possible selves is assessed through the Possible Selves Questionnaire, which contains a Likert-scale for participants to indicate their various possible selves (e.g. personality characteristics and possible jobs). Apart from using the Possible Selves Questionnaire, another approach is for the participants to generate a list of possible selves and to deliberate the likelihood of their occurrences. Structured interviews and card sorting (with the participants sorting their possible selves descriptors into a hierarchical organisation) are also included in the cluster of primary method.

Besides using structured surveys and interviews, narrative methods which involve asking participants open-ended questions about their possible selves are employed, including enquiring about their visions of their ideal and feared future selves (Ruvolo & Markus, 1992); the gender differences between these future selves (Lips, 2007); cross-cultural differences of these future selves (Gibbons, Lynn, Stiles, de Berducido, Richter, Walker et al., 1993). In addition to analysing individual narratives, researchers use focus-groups to explore the participants' possible selves as a group narrative.

Visual methods involve image-based and graphical-based methods (i.e. asking participants to construct their own images of possible selves), though scarcely

used, are employed. Such approaches are typically used as supplement to the key methods such as structured surveys or narrative research. In the last cluster, drama (which includes the use of acting, role-play and mental simulation/visualisation techniques) is used to elicit participants' possible selves. Observations in natural settings (e.g. school playgrounds) are also incorporated in this cluster.

2.3 Second language (L2) motivation

Having reviewed the research in mainstream psychology regarding possible selves, we will now turn to the related research in second language (L2) motivation. Before doing so, it is worthwhile to have a brief overview of the L2 research that has been carried out for the past few decades.

One of the influential theoretical framework in the field of L2 motivation is the socio-psychological model proposed by Gardner and Lambert (1959, 1972), who explored the affective and sociopsychological aspects of L2 learners in the Canadian context. The rationale behind is that L2 learners are inspired to learn a language either because of their 'instrumental motivation' or their 'integrative motivation'. By instrumental orientation, it means that learners are motivated to learn an L2 in order to attain external gains such as academic, social, political and material rewards. Having integrative orientation, on the other hand, suggests that learners are motivated to be integrated into a target community and to become an in-group member. This theoretical framework has generated tremendous interests in the field and gained much influence in the five decades since it was first introduced.

However, in the 1990s, there was growing dissatisfaction with the model as there was ambivalence about integrativeness/integrative motivation (Dörnyei, 2005). Not only were there difficulties in distinguishing the labels of integrativeness versus

integrative motivation, researchers also felt that the integrative orientation could not explain the learning experience of many L2 learners who do not reside in communities in which the target language is spoken. As a result, they may have insufficient experience to develop particular attitudes or integrative motivation towards a target community (Lamb, 2004), especially in a world which is becoming increasingly globalised.

2.3.1 The L2 Motivational Self System

It is with the background of growing dissatisfaction with the integrative/instrumental motivation that the theoretical construct of ‘The L2 Motivational Self System’ was proposed (Dörnyei, 2005, 2009a), which reconceptualises these notions; that is, instead of viewing learners with ‘integrative orientation’ (i.e. a desire to assimilate with an identifiable L2 speaking community), they are seen to have an open respect for the L2 speaking community (Dörnyei, 2005). Another source of inspiration for proposing the framework is the theory of possible selves as described in the first part of this chapter. The use of possible L2 selves opens up new possibilities and created new research agendas in the field of second language motivation.

Dörnyei (2009a) in his article on *L2 motivational self system* has delineated step-by-step how the theory has come into shape, drawing proof from various strands of evidence. Using data from the previous longitudinal research conducted in Hungary with 13,000 students in total and together with plethora of studies about the importance of L2 learning experience produced in the 1990s, Dörnyei has mapped the existing theories, including integrativeness with the ideal self. The L2 Motivational Self System includes three main constructs: the Ideal L2 Self, the Ought-to L2 Self, and the L2 Learning Experience. The first two components would

be possible selves that are specifically related to the L2 facets. An example of the Ideal L2 Self would be the self which could be proficient in the target language and could thereby confidently speak and write in different contexts. The Ought-to L2 Self, on the other hand, is the representations which one believes they are expected to become. In other words, the person believes that he/she is demanded to live up to expectations set by others, but this could produce a counter effect rather than having a motivational impact.

In order to validate the construct of L2 motivational self system, ample quantitative studies have been conducted to confirm its validity, especially those collated in the anthology *Motivation, language identity and the L2 self* edited by Dörnyei and Ushioda (2009) (e.g. Taguchi, Magid, & Papi, 2009; Csizér & Kormos, 2009; Ryan, 2009; Yashima, 2009; Al-Shehri, 2009). In particular, the Ideal L2 Self was found to be significantly correlated with integrativeness (Taguchi et al., 2009; Ryan, 2009) and, in fact, it has a stronger predicting power of learners' motivated behaviour when compared to integrative motivation (Csizér & Kormos, 2009; Taguchi et al., 2009; Ryan, 2009). In addition, there is also a strong explanatory power of L2 learning experience, which exerts important influences on learners' intended effort (Csizér & Kormos, 2009), and in some cases, the effects of language learning experiences were found to be stronger than the Ideal L2 Self (Csizér & Kormos, 2009). On the contrary, the motivating power of the Ought-to L2 Self was found to be marginal or cultural-specific, exerting its influence in the Chinese and Iranian contexts (Taguchi et al., 2009), but found to be non-significant in the Hungarian (Csizér & Kormos, 2009), Japanese (Aubrey & Nowlan, 2013; Taguchi et al., 2009) and Chilean contexts (Kormos, Kiddle, & Csizér, 2010). In summary,

Ryan (2009, p. 137) has rightly remarked that these results provided strong empirical backing for calls to ‘reinterpret L2 motivation from a self perspective’.

Although various large-scale, quantitative survey studies have been conducted, validating and supporting Dörnyei’s (2005, 2009a) construct of L2 motivational self system, other researchers have advocated the use of qualitative approaches to explore the complexities of interacting factors including people’s identities, roles, and contextual variables (Ushioda, 2009), which cannot be fully explored by quantitative methods. To this end, a small number of qualitative studies have been carried out to investigate the underlying processes of the target construct (e.g. Anya, 2011; Aubrey & Nowlan, 2013; Campbell & Storch, 2011; Irie & Brewster, 2013; Kim, 2009; Lamb, 2007, 2009, 2011; Taguchi, 2013). For example, to investigate why students chose to learn and to continue to learn Mandarin as a foreign language, Campbell and Storch (2011) interviewed seven university students in a longitudinal and cross-sectional study. The results have found that students’ choice to learn the language was based on positive learning experiences, the belief that learning Chinese will enhance their potential job opportunities, and their personal goals including both mastery and performance goals. In addition, if a learner has an Ideal L2 Self that remained ‘unchanged and steady’ (p. 186), their demotivation caused by negative learning experience and contextual factors can be counterfeited.

2.3.2 Possible selves interventions in L2 learning

Although there are ample studies exploring the effects of possible selves interventions on students’ general academic achievements (e.g. Hock et al., 2006; Oyserman et al., 2002, 2006; Oyserman & Markus, 1990; Sheldon & Lyubomirsky,

2006, see Section 2.2.4), studies investigating how such enhancement programmes could enhance learners' L2-related future identities and their L2 motivation have been scarce. We are, however, seeing a gradual increase of interest in this area; researchers such as Fukada, Fukuda, Falout, & Murphey (2011) and Sampson (2012) have spearheaded and explored the effects of using possible selves in L2 learning. They have provided initial evidence to support the fact that helping students to develop and strengthen their Ideal L2 Self may have a positive impact on their L2 motivation.

These studies employed various possible selves enhancement activities to elicit and strengthen L2 students' future self-guides in Japanese university students (Fukada et al., 2011; Sampson, 2012). In the study conducted by Fukada and his colleagues (2011), the researchers advocate the importance of 'Antecedent Conditions of the Learner' (ACL), which are emotional baggage a learner has of him/herself and self beliefs regarding one's past successes and failures. ACL may in turn have an impact on students' present investments in L2 learning. The constructs of ACL and possible selves are socially malleable; therefore by sharing one's possible selves with peers and hearing others talk about their futures, a learner can create new English learning experience and feel more confident and in control of his/her learning. To this end, possible selves activities used in this study involved students sharing their ideal future careers with peers, discussing each other's future goals, and using drama to enact one's future selves. There was a significant increase in the correlations between students' possible selves/ACLs and their investments in L2 learning both in and outside the classroom as a result of the intervention.

Sampson (2012) also conducted a possible self enhancement programme in a females-only Japanese university where action research was employed. In the three

cycles of a semester, students' work on various possible self tasks was used to develop and inform task development in the next phase. In doing so, researchers were able to have a glimpse into the various facets of students' possible selves, to recognise the rather coarse nature of the visions of their future self. The study showed that the students found the activities that provided steps towards the Ideal and Feared L2 Selves particularly motivating. Because opportunities were provided for students to reflect upon their future selves, they gained new insights into various strategies or paths towards their goals. Both Sampson (2012) and Fukada et al. (2011) emphasised the value of social factors in enhancing students' development of possible L2 selves and suggested that when listening to each other's dreams or ideals in the future coming from fellow students, learners felt more connected. They are therefore more encouraged to contemplate and act upon their own future selves.

Although both studies conducted by Sampson (2012) and Fukada et al. (2011) were vigorous, yet an additional component using imagination or visualisation in the possible self enhancement programme would have been an asset (which will be further explained in Section 3.4.1).

2.3.3 Possible selves and second language Teachers

Compared to the research done on L2 learners, studies exploring the link between self-related perspectives and teacher motivation have been scarce (Kumazawa, 2013). This can be reflected by the fact that language teacher motivation as a research area has not been prominent in the field of language teacher cognition (Dörnyei & Kubanyiova, 2014). Yet, its importance was stressed by Dörnyei and Ushioda (2011) who propose that investigating language teachers' enthusiasm and motivation to teach has an impact on students' motivation to learn.

Nonetheless, several researchers have spearheaded in exploring issues in this area over the past five years (e.g. Hiver, 2013; Kubanyiova, 2007, 2009; Kumazawa, 2013; White & Ding, 2009). Some studies focused on the development of self-concepts in L2 teachers, with an example of Kubanyiova's (2007, 2009, 2012) study investigating the development of English teachers in Slovakia, factors that motivated teachers to pursue the teaching profession, as well as how the different language teacher selves influenced their pedagogy and teaching strategies. In this study, the concept of *Possible Language Teacher Self* was proposed, which represents teachers' ideal, ought-to and feared selves associated with the language teacher identities. A strong link between teachers' various language teaching-related self-concepts and teachers' motivation was found. In other words, teachers' Ideal Language Teacher Self was found to have an impact on their classroom strategies and teaching. In her data, participant Iveta attempted to reduce the discrepancy between their Ideal Language Teacher Self (to be recognised as a good teacher) and her actual self (lacking in self-confidence in grammatical rules), which led her to explain grammatical rules in a way that prevented students for asking questions.

Similarly, Hiver (2013) explored the roles of Possible Language Teacher Selves play in the development choices of seven in-service Korean English teachers to initiate and engage in professional teaching development. Based on in-depth interviews and secondary sources, such as research journals and memos, it was found that all his participants acquired elaborated Ideal Language Teacher Self (i.e. self as expert language users and self as expert teachers), which contributed to their wishes to enhance their desired future self-guides through professional courses. The results from these studies point to the claim that future self-guides are powerful motivators in the teaching profession.

Apart from the Possible Language Teacher Self, research has shown that the competing nature of self-guides also have an effect on teachers' behaviour. There are conflicts between different Ought-to Language Teacher Selves that were derived from the context (school authority) and ones from the teacher development course, suggesting that obligations and pressure from the school context can exert a powerful impact on teachers' cognition and behaviours. In order for teachers to experience developmental change in motivation, it is important that the new ideas (proposed in the teacher development course) aligned with their intrinsic motivation, but they also have to be aware of the discrepancy between their Ideal Selves and the current state in order to take necessary steps (Kubanyiova, 2009). Similarly, conflicts between new teachers' various possible selves had a negative impact on their motivation. When these teachers engaged in self-reflections concerning such conflicts, they were able to regain their motivation (Kumazawa, 2013).

Feared Language Teacher Self, usually accompanied by the feeling of lack of adequacies of the self, is found to be a prominent motivator in some EFL teachers, acting as a major factor for teachers to initiate continued teacher development (Hiver, 2013). This suggests that the teachers who were afraid of being perceived as inadequate as language teachers tend to take the initiative to engage in continuing teacher development.

2.4 Conclusion

In this chapter, I have reviewed theories related to possible selves, including possible selves theory by Markus and Nurius (1986) and self-discrepancy theory by Higgins (1987). Possible selves are cognitive constructs and knowledge of a person's hopes,

desires, goals and fears that are associated with the future. They are highly personalised and are subject to revision; they vary in elaboration and are linked to plans and strategies. In terms of motivational mechanisms, possible selves can be translated to actions when they are incorporated into a person's working self-concept; that is, possible selves are more likely to motivate behaviours when they are active in thought and memory at any one time. They are also seen as behavioural standards or goals that a person can strive towards. Coupled with the favourable conditions (e.g. having sufficient strategies and road maps), possible selves can act as effective self-regulators. In the realm of education, academic-related possible selves are positively associated with enhanced achievements at school. When the construct is employed in education interventions, they can enhance learners' academic behaviours and performance.

To this end, in the field of L2 motivation the concept of possible selves have been incorporated into the theoretical construct known as 'The L2 Motivational Self System' proposed by Dörnyei (2005, 2009a). Ample validation studies have been conducted, diverging to confirm the motivational power particularly of the Ideal L2 Self. Various future self-guides have been investigated through the use of intervention studies as well as qualitative studies, revealing how they are displayed in L2 learners and teachers alike.

Chapter 3

Vision

‘Where there is no vision, the people perish.’

— Proverbs 29:18

3.1 Introduction

As we read in Chapter 2, possible selves exert motivational power as individuals compare their current experience and their desired future self-guides. This chapter is a continuation in that vision and mental imagery are considered as an important facet of possible selves, which can be viewed as ‘a *compelling vision* or conception of the self in the future state’ (Wurf & Markus, 1991, p. 39, emphasis mine). Here I continue to survey how vision and mental imagery exercise a powerful force on people’s various achievements and endeavours. I first examine the definition and characteristics of personal vision (Section 3.2) and mental imagery (Section 3.3), and then I explore possible ways to ignite learners’ and teachers’ vision (Section 3.4). Finally, I review other L2 theories that are closely related to vision, including a novel theoretical framework ‘Directed Motivational Currents’ that has been newly proposed by Dörnyei and his colleagues (Dörnyei, Ibrahim, & Muir, in press; Muir & Dörnyei, 2013, see Section 3.5).

3.2 Personal vision

The word vision has different connotations, and according to the Oxford Dictionaries (2014), some of its meanings include: ‘the faculty or state of being able to see; the ability to think about or plan the future with imagination or wisdom; and an

experience of seeing someone or something in a dream or trance, or as a supernatural apparition'. Although the concept of vision means different things to different people, its impact on individuals and social groups is both alluring and uplifting, especially when we hear about visionary leaders whose vision inspired them to strive towards extraordinary goals. Some unequivocal examples include Martin Luther King with his famous speech 'I have a dream', and Nelson Mandela who envisaged, in his words, 'the ideal of a democratic and free society in which all persons live together in harmony and with equal opportunity' (Nelson Mandela Centre of Memory, 2014).

Vision has been theorised by researchers such as van der Helm (2009), who has proposed a theoretical framework of seven types of vision in different areas, including humanistic vision, religious or eschatological vision, political vision, business or organisational vision, community vision, policy vision, and personal vision. An area of particular importance here is personal vision and how it relates to us:

Vision emerges or is developed within personal development projects. This vision has much to do with giving meaning to one's life, with helping to make shifts in professional careers and with coaching yourself in realising a personal dream. They often tend to present themselves as you-can-do-it-if-you-really-believe-in-it self-help manuals, but they are also part of serious approaches to personal coaching. (p. 98)

van der Helm (2009) advocates that 'all visions build on a number of more or less universal characteristics and basic conceptions' that include the future, the ideal

and the desire for deliberate change (p. 97). However, vision is more than merely pointing to a future situation; it signifies ‘preferred futures as opposed to possible futures or likely futures’ (p. 99). More importantly, vision can initiate and sustain action towards a particular direction as it is succinctly put: ‘a vision is needed in order (to help) to converge our actions into a desired direction [...] [The] vision is there to generate and/or direct change’ (van der Helm, 2009, p. 99).

With regard to the functions of vision, van der Helm (2009) states that vision fosters motivation, instigate transformation, inspire and give directions. This has been echoed by Levin (2000) who suggests that vision ‘possesses potent orienting capacities’ and that it can ‘play a key role in providing a connection to a sense of purpose and meaning greater than oneself and can serve as a beacon of inspiration during times of change and disruption’ (p. 92).

3.3 Imagery

3.3.1 The definition of imagery

Closely intertwined with vision is the concept of mental imagery, which is likely to be familiar to us at a common sense level. Having imagery is a most natural, ubiquitous human experience and the concept of mental imagery. For example, when people daydream about an impending exotic holiday, they may have images of themselves lying under the sunshade on a white sandy beach, listening to the lapping of the waves in the ocean. People may also visualise a holiday they have had in the past and savour the special moments. These mental pictures that are conjured up are often known as ‘seeing with the mind’s eye’ or ‘visualising’, which are the common parlance we use.

More technically, based on an analysis of a large collection of existing definitions, psychologist Richardson (1983) proposes that the definition of imagery is to *describe* what it is and to *explain* its processes. That is, the term signifies ‘a class of inferred cognitive constructs or processes, or a class of more or less percept-like experience’ (Morris et al., 2005, p. 36). In fact, the definition of imagery may vary according to the particular aspect of imagery which the researchers wish to emphasise (Murphy & Martin, 2002). Therefore, imagery can be defined as the creation of mental images with the use of various sensory modalities, including visual, auditory, olfactory and tactile (Weinberg, 2008). Through imagery, the internal experience of perception can be re-created in the absence of the appropriate sensory input (Wraga & Kosslyn, 2002), but imagery can also be based on actual experience (Finke, 2014). Emphasising particularly the imagery use in athletes, Morris and colleagues (2005, p. 19) extend Richardson’s (1983) definition by suggesting that agency and past memory are also involved in imagery production:

Imagery, in the context of sport, may be considered as the creation or re-creation of an experience generated from memorial information, involving quasi-sensorial, quasi-perceptual, and quasi-affective characteristics, that is under the volitional control of the imager and which may occur in the absence of the real stimulus antecedents normally associated with the actual experience.

3.3.2 Mental imagery versus daydreaming

Distinguishing mental imagery from daydreaming may give us more insights into the nature of imagery as it is ‘similar to vivid daydreaming but is much more purposeful

and directed’ (Knudstrup, Segrest, & Hurley, 2003, p. 573). According to Eric Klinger (2009, p. 225), an American psychologist specialising in personality and motivation, daydreaming is:

nonworking thought that is either spontaneous or fanciful’, which includes spontaneous mindwandering as well as a deliberate decision to daydream about something.

Daydreams are very similar to mental imagery in that the former can be generated deliberately or spontaneously, and can be directly related to or completely unrelated to an immediate activity. Although daydreams can be connected to an individual’s goal pursuit, it ‘lacks a *disciplined focus* on working toward a goal’ and they are ‘free of evaluations of how well they are advancing daydreamers toward their goals and free of attempts to direct the daydreamer’s attention back to a problem’ (Klinger, 2009, p. 227, the emphasis mine). In other words, daydreams, on their own, may not have the motivating power or evaluative framework to guide an individual towards goal-directed actions. In order for mental imagery to serve motivational functions, certain conditions are required, which are outlined in Section 3.3.6.

3.3.3 The nature of mental imagery: Insights from psychology

In the cognitive theory *dual coding hypothesis*, psychologist Allan Paivio (1975) proposes that mental imagery is distinctive from linguistic or propositional thought and it is a form of internal mental representation that is visual or spatial. According to this hypothesis, learning can be enhanced by providing two different routes in

recall, that is, through words and through images. In other words, human thought takes two different forms of mental representations: language-like, propositional thought or visual mental representation (Farah, 2001). For example, if a person is to learn the word 'apple,' he can recall the concept using verbal means or an image of the fruit. The probability of recalling a specific word is higher using both words and images.

Of particular importance here is Paivio's (1985) 2 x 2 factor model known as the *applied model of imagery use in sport*, which provides motivation and cognitive explanations of various types of imagery. For example, the theory looks at the motivation functions when an athlete visualises a positive outcome of a game; it can also focus on the cognitive functions that are utilised when a gymnast images the way s/he performs a specific move. Paivio (1985) maintains that these two functions can be categorised into general and specific levels.

The specific functions of imagery use were further operationalised by Martin et al. (1999) who identified five types of imagery used by athletes: cognitive specific (CS), cognitive general (CF), motivational specific (MS), motivational general-arousal (MG-A), and motivational general-mastery (MG-M). These various types of imagery are used by athletes in mental rehearsal to perform different functions. They include the imagining of particular skills in sports, such as specific movements in a particular sport (i.e. in CS imagery) or visualising the winning strategies in games and routines (i.e. in CF imagery). Motivation-related imagery includes imagining attaining goal achievement, such as winning a medal (i.e. in MS imagery), visualising states of being stressed, anxious or aroused (i.e. in MG-A imagery), and imagining being confident, mentally tough, focused and positive (i.e. in MG-M imagery).

3.3.4 Different types of imagery

In this section, I present four different types of imagery, including goal achievement imagery, process-based imagery, mental rehearsal and negative imagery.

Goal achievement imagery

Goal achievement imagery can be defined as ‘the perception-like mental representation of the pursuit and attainment of a goal’ (Schultheiss & Brunstein, 1999, p. 1) or ‘a type of mental representation specialised for representing information about goals’ (Conway, Meares, & Standart’s, 2004, p. 525). In the case of sportsmen, goal achievement imagery includes imagining passing the finishing line, receiving awards, winning a competition or functioning as a professional like a coach. Such imagery is a ‘language of goals’ (Conway et al., 2004, p. 525) and may serve as a stimulus during a ‘long period when objective incentives and reinforcements are likely to be rare or improbable’ (Paivio, 1985, p. 245).

Process-based imagery

Research has revealed that motivational effects are more prominent for process-based imagery than outcome-based imagery (Escalas, 2003; Ten Eyck, Labansat, Gresky, Dansereau, & Lord, 2006; Ratcliff, Czuchry, Scarberry, Thomas, Dansereau, & Lord, 1999; Pham & Taylor, 1999). Process-based imagery involves simulating the process needed to reach a goal. This could include rehearsing steps that lead to appropriate changes and emotions which may be evoked in the process. It also entails forming appropriate action plans.

Mental rehearsal imagery

Mental rehearsal refers to times when individuals practise, prepare and visualise the performance in their mind for a specific event. Repetition of the same imagery can be conducted to achieve excellence in the real performance. In sport psychology, imagery rehearsal is in fact a type of mental practice and is sub-divided into visual rehearsal, kinaesthetic rehearsal, or emotional rehearsal (Murphy & Martin, 2002). Knudstrup et al. (2003, p. 573) provide a concise definition that can be used for mental rehearsal:

The individual mentally re-creates scenarios and, within these scenarios, visualizes effective performance and positive outcome. Ideally, the correct or appropriate behaviours are practiced mentally in a fashion similar to the actual physical behaviours.

Negative imagery

Negative imagery is a type of visualisation that may flag up any problems and help individuals decide on a course of action in order to avoid undesirable situations. Regarding the possible impact of negative imagery, experts in sport research are divided as to whether it is beneficial or detrimental to human performance (Dörnyei & Kubanyiova, 2014). On the one hand, sport psychology literature suggests that creating negative imagery can have an adverse effect on the performance of competitive golf putting, causing greater errors during competitions (Taylor & Shaw, 2002); on the other hand, it can prepare professional skiers for worst-case scenarios (Hale, 2005), which could be advantageous.

Using the same reasoning, whether negative imagery has beneficial or damaging effects depends on what it is used for. For example, for the purpose of preparing for an academic presentation or teaching demonstration, negative imagery may create unnecessary negative emotions that are associated with the performance. In this case, detrimental effects on a person's performance can be seen, as suggested in Taylor and Shaw's (2002) study.

3.3.5 Functions of imagery

Motivational functions

The motivating power of mental imagery has been verified by studies in sport and health psychology. The use of imagery significantly increases the time spent on golf-putting practice that is self-initiated (Martin & Hall, 1995); reduces alcohol consumption in undergraduate students (Hagger, Lonsdale, & Chatzisarantis, 2012) and increases fruit consumption in those who were low fruit consumers (Knäuper, McCollam, Rosen-Brown, Lacaille, Kelso, & Roseman, 2010).

A study conducted by Martin and Hall (1995) on beginner golfers demonstrates the effect of imagery on participants' self-efficacy and motivation to practise a golf-putting task. Three conditions were used in this study including, performance imagery (imaging the skills used when performing a putt), performance-plus-outcome imagery (imaging both performing a putt as well as successfully performing the putt), and no imagery. The results found that the participants in the performance imagery group set higher goals and had more realistic expectations for themselves. The participants in the imagery group spend the longest period of time practising golf putting of their own accord, whereas practice

time does not differ between the performance-plus-outcome-imagery group and the no imagery group.

A study conducted by Chan (2013) shows that the imagery used by motivated doctoral students are geared towards a motivational or rehearsing function and the preventive, strategic and affective functions are characterised less frequently. The asymmetrical prominence of motivational and rehearsing functions could be related to the high levels of motivation found among successful mature students, who have a strong desire to achieve their goals and progress in their careers.

Affective functions

Apart from having motivational impact, studies in sport psychology have found that imagery or imagery interventions can enhance self-confidence (e.g. Mamassis & Doganis, 2004; McKenzie & Howe, 1997). This could be due to an increased sense of competence and achievement created by imagery. As imagery enhances the performance and thereby increases the chance of achievements in sports, a person's self-confidence may also be boosted. In other words, imagery could have a direct and/or indirect effect on an individual's self-confidence.

Cognitive functions

Simulation of future events has specific cognitive functions, including evaluating the viability of plans and remembering intentions to carry out future actions, which, in turn, will affect a person's motivation. The process is similar to the theoretical framework *implementation intentions theory* developed by Gollwitzer (1999), who suggests that forming implementation intentions (i.e. deciding when and where to engage in actual action) can help individuals get started and stay on track. A study

conducted by Knäuper, Roseman, Johnson, and Krantz (2009) has found that mental imagery can enhance the effectiveness of implementation intentions. Participants who perform mental imagery of the task (which was to collect five US dollars in a psychology department) are significantly more likely to complete the task than those who do not use visualisation.

3.3.6 Conditions of the functional capacity of imagery

The value of imagery is revealed by findings in sport psychology research, suggesting that imagery can improve performance even when the participants have had no physical practice at all (Hall, 2001). However, there are also moderators that can influence imagery effectiveness, including the type of task being imaged, the duration and timing of the imagery practice, and the individual's ability to generate and control vivid images (Cumming & Ramsay, 2009). The motivational power of imagery is exerted under certain conditions, such as contrasting prospective imagery with reality, accompanying imagery with a concrete plan, using a proximal temporal dimension, and having a first-person perspective, which are summarised as follows.

Contrasting prospective imagery with reality

The importance of contrasting prospective imagery with reality can be explained by *fantasy realization theory* (Oettingen, 1996, 1999), which suggests that *mental contrasting* can ultimately translate the desired future states into the necessary actions that are required to achieve the goals. During mental contrasting, a person has to simulate the desired future events in comparison with the present reality. The present reality is then seen as a salient obstacle to attaining the desired future. In

order to reach one's target, individuals have to overcome the obstacle and make necessary action plans to reach end results.

Research has found that mental contrasting greatly energises the participants, helps them form high outcome expectations, and motivates them to take immediate actions in solving interpersonal problems (Oettingen, Pak, & Schnetter, 2001). In one of the studies (Study 4) conducted by Oettingen et al. (2001), college students were assigned to four conditions namely (a) the mental-contrast group which simulated the desired future first followed by the negative reality, (b) the indulging group whereby participants fantasised happy future scenarios, (c) the dwelling group in which participants were asked to ruminate about the negative reality, and (d) a control group in which the order of the simulations was reversed as compared to the first condition to tackle an interpersonal problem.

It was revealed that the participants in the mental contrasting group feels greatly energised directly after the simulations. This is particularly so for those with high-expectancy feeling: they are most energised and take immediate action to solve the problem. By contrast, opposite results were obtained, with people with low-expectancy being least energised after the simulation. The participants in both the indulging and dwelling conditions only feel moderately energised and delay the actions taken. The results in the control group were found to be similar to both the indulging and dwelling conditions, which suggest that thinking about the reality first and then the desired future may not activate the mental-contrasting effect. In summary, although individuals who use mental contrasting may feel greatly energised and motivated to take immediate actions, it is only effective for those with high outcome expectations. For those with low outcome expectations, the opposite is true.

Accompanying imagery with a concrete plan

A quote by Michael Johnson, the male athlete who was a five-time gold medallist in the history of Olympics and who is also a world record holder at 400m (de Bertodano, 2012), depicts the importance of planning in the use of visualisation:

You must understand, I am not by nature a daydreamer. I try to control those parts of my life that can be controlled, to plan everything that I want to happen down to the most insignificant detail. I travel in a world in which fractions of a second separate success and failure, so I'd visualised the 1996 Olympics down to the millisecond. I'd crafted a decade of dreams into actions, refined ambitions into goals, and finally hammered goals into plans (Harwood, Cumming, & Hall, 2003, p. 292).

Psychological temporal dimension

Psychological distance with respect to the future dimension influences people's motivation and choice of decision. Theories of temporal psychological distance have revealed that people tend to identify their future selves as more looming and significant, whereas individuals view their distant future self as a stranger or someone who does not relate to them. Therefore, conducting mental simulations with one's proximal future self may have positive motivational results (Perunovic & Wilson, 2009). For example, research has revealed that seeing proximal future successes instigates a confidence boost in the current self (Wilson et al., 2007; cited in Perunovic & Wilson, 2009). Another study investigating the relationship of psychological temporal distance and motivation shows that students reports to have

more motivation to study when they are induced to view their graduation as psychologically closer (Peetz, Wilson, & Strahan, 1999). Therefore, temporal dimension of imagery should be considered when conducting mental imagery.

Imagery perspectives

Taking on various imagery perspectives, such as the first-person or the third-person perspective, may have different psychological consequences and effects on an imager. In the first-person perspective (i.e. looking at a situation with one's own eyes), imagers tend to adopt an experiential mindset, focus on the details of an event and relive past emotion. Alternatively, people visualising in the third-person perspective (i.e. mentally simulating an event as an outsider or an observer), tend to take on a reflective mindset, draw broad conclusions as to what the event means to their life and are less likely to relive past emotion (Libby & Eibach, 2009).

There is a question as to how taking on these two imagery perspectives will affect a person's motivation. Research has revealed that visualising in the third-person perspective may have more motivational effects. For example, Libby, Shaeffer, Eibach and Slemmer (2007) have investigated the relationship between visual perspective in imagery and voting behaviour in the 2004 U.S. presidential election and found that the participants who pictures themselves in the third-person perspective have stronger identities as voters and are more likely to vote on the next day than those in the first-person perspective condition.

Similarly, Vasquez and Buehler (2007) found that students are more motivated to in their academic achievements if they visualise in a third-person rather than a first-person perspective. The empirical evidence suggested that the effects are not influenced by the participants' reliance on fantasies, their performance

expectancies or the perceived temporal distance of the imagined event but primarily due to 'the personal meaning or value that individuals ascribed to their successful completion of the task' (Vasquez & Buehler, 2007, p. 1401).

Studies exploring the effects of internal and external perspectives on sports performance suggest that imagery perspective had no significant effect on performance (Epstein, 1980; Gordon, Weinberg, & Jackson, 1994; Mumford & Hall, 1985). Experiments of this kind are generally difficult to monitor since the participants are found to image both internal and external perspectives. Athletes are advised to employ both perspectives as they may provide different information about a particular movement in sports.

3.3.7 Assessing and training participants' imagery abilities

The definition of *imagery ability* is 'an individual's capability of forming vivid, controllable images and retaining them for sufficient time to affect the desired imagery rehearsal' (Morris, 1997, p. 37). Technically speaking, the term imagery ability is inaccurate as it pertains to fixed capability, something that is endowed upon and cannot be changed. However, research on imagery training reveals that imagery abilities can be improved, indicating that they are skills instead of abilities (Morris et al., 2005). The use of the term imagery ability, however, has become conventional in the field of sport psychology. Imagery abilities comprise of a specific set of dimensions (e.g. vividness, controllability, duration, the difficulty in evoking an image, the ease of formation of an image, the perspective taken) and modalities (e.g. visual, kinaesthetic, auditory, tactile, gustatory and olfactory). Another characteristics that could be incorporated as a component of imagery ability is the experience of emotion (Suinn, 1993).

Participants' imagery abilities are foundation blocks since studies have shown that experiential, behavioural and psychological changes can only be brought about in those who possess the ability to image vividly, as compared to those with limited ability (e.g. Richardson & Taylor, 1982). It points to the importance of assessing and training students' imagery ability before conducting any interventional imagery programmes.

Although it is not easy to assess imagery abilities because they cannot be observed directly, they can be systematically examined by using psychometrically-validated self-report measures. The assessment of imagery abilities involves two different measures, including objective and subjective measures. In objective measures, people's perceptual, cognitive, and spatial visualisation and transformation abilities are assessed. In other words, individuals have to perform manipulations of various objects and to select a specific object configuration amongst other choices. This is mainly used to assess the control dimension of imagery ability.

The more common test of imagery ability is the use of self-report questionnaires. One of the methods includes having the informants report specific characteristics of a common image such as a sunset. Another method involves the participants generating a specific scene, such as imagery of woodlands, and informants may have to report on various dimensions, including vividness, controllability, perspective (internal versus external), presence and ease.

An example of a self-report inventory on imagery ability is the *Sport Imagery Ability Measure* (SIAM) developed by Watt, Morris, and Andersen (2004). This is a comprehensive questionnaire for use in sport which presents four common sport scenes and participants are asked to rate their response on five dimensions

(vividness, controllability, speed, ease, and duration of imagery), six sense modalities (visual, kinaesthetic, auditory, tactile, gustatory, and olfactory), and emotion. Although SIAM is particularly tailored for athletes, education practitioners could modify the sport scenes to other static imagery, such as the visual image of faces of one's family, places which participants are familiar with, or scenes of a memorable event. To assess students' imagery ability, the five dimensions and six sense modalities together with one's emotion response (as in SIAM) could then be elicited.

To train the weaker imagers before employing any imagery-based interventions, researchers have provided various suggestions to train weak imagers by putting an emphasis on increasing their sensory awareness. This can be done by drawing the participants' attention to the sensory details of actual stimuli, such as asking them to imagine familiar, static targets (e.g. images of a person's close friend), visual and gustatory imagery (e.g. a person's favourite food) and auditory imagery (e.g. one's favourite piece of music or the familiar ringtone of one's mobile phone). As Morris (2010, p. 485) succinctly summarises, 'imagery ability is a misnomer, because ability, as defined in psychology, are fixed capacities, whereas imagery *skill* can be increased by specific practice'.

Earlier research also suggests that imagery can be trained. A study evaluating three different procedures for increasing imagery vividness has been conducted by Richardson and Patterson (1986). The participants who are weak imagers are trained over a period of four successive days in three separate groups, namely: (a) relaxation and multimodal imagery training, (b) multimodal imagery training only and (c) relaxation and visual modality imagery training. The participants' physiological changes (i.e. the amount they salivated to food stimuli) are used as a measure of the

effects of imagery vividness. The results revealed that weak imagers who undergo vividness training shows a significant increase in salivation to the imaged food stimuli between the pre- and the immediate post-training period. This effect is also extended to the delayed post-training periods. This shows that imagery vividness is a trainable capacity even for weak imagers as long as they are willing to put in the time and effort to have their natural ability released.

3.3.8 A word of caution in the use of imagery

It is worthy to note that imagery on its own is not intrinsically beneficial as illustrated by depressive patients who ruminate on depressing thoughts and imagery and the hallucinations experienced by psychotic patients (Taylor, Pham, Rivkin, & Armor, 1998). Research has also shown that the automatic imagery experiences athletes produce tends to be negative (Morris et al., 2005). It was said that when it is ‘not consciously controlled our imagery is often unhelpful or even mischievous’ (Morris, 2010, p. 482). As visualisation is a highly complex process, it is useful for practitioners to understand the potential problems in order to maximise its benefits. Several researchers (e.g. Murphy & Martin, 2002; Taylor & Pham, 1996) have discussed some issues related to imagery use, which include:

- ***Lack of control.*** Some individuals may find it difficult to control the contents of their imagery and this may result in experiencing negative imagery or generating unwanted images (Murphy & Martin, 2002).
- ***Overconfidence.*** Imagining positive imagery, an outcome imagery, or a perfect performance may lead to the imager revelling in the imaginary successes and becoming overconfident instead of focusing on the required steps which are imminent (Murphy & Martin, 2002).

- ***Distraction.*** In sport psychology, maintaining concentration on various environmental cues as well as internal strategies is important for an athlete (Hale, 2005). Similarly, the ability to maintain concentration and pay attention to important tasks at hand is an important criterion for aspiring L2 learners and teachers, especially when the use of mental imagery could become a distraction at times (Chan, 2013). It should be matched with structured behavioural sequence so that actions will be taken to achieve a specific goal in the future (Muir & Dörnyei, 2013).
- ***Reduction of goal commitment.*** However, even positive goal imagery may induce negative emotions especially for those who are afraid of failures and this could potentially lead to a reduction of goal commitment (Oyserman & James, 2009).

3.4 Creating the vision in L2 students and teachers

3.4.1 Igniting learners' visions

Regarding the way to (re)ignite language learners' vision, Dörnyei and Kubanyiova (2014), in their inspiring book *Motivating learners, motivating teachers: Building vision in the language classroom*, argue that it is not possible for any motivational intervention to help students create a new ideal self from scratch, but it is more realistic for teachers to help raise learners' awareness of the different possible selves that are available. In fact, some learners may have already contemplated their possible selves in the past from multiple sources, such as the media, parents, teachers, peers and significant others. However, it is still important for teachers to provide the opportunities for students to survey various possible selves. I particularly agree with the authors that the 'construction of ideal language selves ultimately

[occurs] as the outcome of the students' rather than the teachers' effort' (p. 51).

Indeed, it is important for students themselves to identify the L2 visions they would like to pursue.

Few motivational interventions specifically focusing on vision and imagery have been conducted. For example, Magid (2011) have designed and conducted an intervention programme with Chinese students at a British university with the aim to enhance the participants' vision of their Ideal L2 Self, to help them to develop clear and specific L2-related goals, to assist them in creating action plans, and to offset their Ideal L2 Self with their Feared L2 Self. Based on Oyserman's 'School-to-Jobs Programme' (e.g. Oyserman et al. 2006, see Chapter 1 for details), Magid's programme incorporated various tasks to enhance the learners' Ideal L2 Self. Example of the activities include brainstorming goals, listing positive and negative role models in each of the important life domains (e.g. jobs, relationships and lifestyle), working on an action plan, and using scripted imagery (both positive and negative scenarios). As a result of the programme, the participants' vision of their Ideal L2 Self becomes stronger; they exert more effort towards and more time in English learning; they become more confident in their English and they have clearer and more specific goals after the programme.

3.4.2 Igniting teachers' vision

Dörnyei and Kubanyiova (2014) also explain how teachers can create, develop and sustain teacher vision in their book. Gaining an understanding into teacher vision is vital because teachers can become transformational leaders who facilitate the study of foreign languages. According to the authors, the first and foremost condition is for vision to exist and for this to happen, teachers need to reflect upon their past

experiences as inspirations for their vision. They should also survey learning theories in order to create ‘images of good teaching’ (p. 164). It is argued that in order for teachers to create a vision, they can become involved in three processes:

- To gain a deep understanding of what their gifts and strengths are and where their passion lies;
- To contemplate upon the ultimate aims that draw them to become language teachers; and
- To construct an image of their desired teaching selves.

Some of the steps which are incorporated in these processes include (a) recognising their own gifts, so that the vision is congruent with what they enjoy and their capabilities; (b) revisiting images of past learning experiences because such memories can have a lasting impact on the way we behave as teachers; (c) reconnecting to the reasons and values which brought teachers into the profession; (d) generating images of Ideal Language Teacher Selves.

Dörnyei and Kubanyiova (2014) quote some interesting studies on teacher vision to illustrate the significance of vision in language teachers’ mental lives. One of the studies is Feryok and Pryde’s (2012) investigation on the role of imaging as an orienting activity. It shows that key images that are held in teachers’ personal practical knowledge (e.g. a guide, a learner and everyday English) guide the participants in their teaching practice, in the planning and in their engagement in classroom activities. Similarly, McElhone, Hebhard, Scot, and Connie (2009) investigate the relations between teachers’ visions of good teaching and the development of professional practice in student teachers who are transiting into their first year of teaching. The teachers who have specific and coherent images of what good teaching means are found to perform better in their teaching practice.

Indeed, there are other researchers who researched into the use of imagery or metaphors in teacher identities. For example, Thomas and Beauchamp (2011) explore how new teachers view their own identities using metaphors. They compare the participants' metaphors that are utilised immediately after graduation and those that are generated throughout the first year of teaching. A change of cognition in the teachers is evident: the use of metaphors revealed that the pre-service teachers are ready for challenges prior to the beginning of their career, whereas the same people adopt a survival mode during their first year of teaching.

3.5 Related theories in L2 motivation

3.5.1 Directed Motivational Currents (DMCs)

The most recent theoretical framework related to vision is *Directed Motivational Currents* (DMCs), a novel construct that has been proposed by motivation researchers Zoltán Dörnyei, Zana Ibrahim and Christine Muir (Dörnyei, Ibrahim, & Muir; in press; Muir & Dörnyei, 2013) in Nottingham. According to Muir & Dörnyei (2013, p. 359), a DMC is defined as:

a potent motivational pathway, which emerges when a specific set of initial conditions fall into place to allow for directed motivational energy to be channelled into a behavioural sequence that is aimed towards a predefined, explicit goal.

In other words, using the metaphor of waves and currents (a term as initially used by MacIntyre, 2012), a DMC is analogous to the currents that exist beneath the

surface of the water which has a ‘long-lasting, deep-running, broad pathways of movement’ and it is different from the ‘surface variability of the waves’ (Dörnyei et al., in press). Despite the use of the metaphor, the authors do not view a DMC as ‘any motivational current or trait in general’, but it is viewed as ‘a unique period of heightened motivation which is set into motion by the combination of a number of factors in the pursuit of a specific goal or vision’.

According to the researchers, four components are delineated as central to the construct (Dörnyei et al., in press), which include:

- *Generating parameters.* To initiate a DMC, ‘triggering stimuli’, which are occurrences in the environments such as the organisation of an event or a race, an offer from the gym, play an important role.
- *Goal/vision-orientedness.* The construct is directed and in order to set things into a course of action, there should be a well-defined goal or specific outcome for the energy to be channelled towards a specific path.
- *Salient facilitative structure.* According to the researchers, a targeted goal/vision should be accompanied by ‘an adequately tailored pathway’, in which there is an abundance of subgoals. There should also be a clear starting point with a conscious decision regarding the launch of action plans as well as having a sense of participant ownership on the part of the individual.
- *Positive emotionality.* A DMC is featured with positive emotionality and enjoyment that is associated with one’s goals and vision. It is linked to the term ‘eudaimonic well-being’, which is a term introduced by Aristotle and is used to refer to ‘personal wellness as distinct from happiness per se’.

Muir and Dörnyei (2013, p. 364, the emphasis theirs) contend that an individual who is in a DMC is different from someone who is inherently interested and motivated in an area, a person in a DMC ‘displays motivated behaviour which is *over and above* their normal levels of motivation, and which pervades several aspects of their lives’. In essence, they succinctly summarise the occurrence of DMCs as a phenomenon

created when a structured pathway is set up towards a vision, in a way in which this pathway both reinforces momentum towards the vision and at each step intensifies it; in this way, a detailed vision of a possible future self acts as the fuel for this drive. (p. 363)

Undeniably, DMCs offer an exciting research avenue as the researchers have successfully identified specific phases of heightened motivated behaviours, which are displayed during specific timeframes, such as the period prior to an assignment deadline, an athlete training before a race and the time when someone engages in weight loss. These are experiences that are experienced by most people and are observed in one’s friends and family, as suggested by the researchers. Some other examples of DMCs include language teaching tasks, projects as well as study abroad experiences. Researching what initiates DMCs and the structural components that support the pathway will be of great interest to motivation researchers as well as education practitioners alike.

3.5.2 Imagined communities

Another related concept ‘imagined communities’ first proposed by Anderson (1991) refer to ‘groups of people, not immediately tangible and accessible, with whom we connect through the power of the imagination’ (Kanno & Norton, 2003, p. 241). In other words, members of a community may not know most of their fellow-members in the community, but would have images of their interactions vivid in their minds. It is suggested that ‘imagination takes place on a societal and not just on an individual level, in the form of ideologies of nationhood’ (Pavlenko, 2003, p. 253). This concept was further expanded by Wenger’s (1998) social learning theory to include any community of practice an individual would like to gain access into. In this sense, imagining being in a community plays an important role in a person’s education as well as his/her identities. This notion is incorporated into Norton’s (2000, 2001) work in her exploration of L2 learning contexts, investigating how immigrant learners are not at ease when speaking to people who are viewed as gatekeepers to the imagined communities they are trying to gain access into. It was argued that educators should acknowledge the imagined communities of the learners in order to impact their learning trajectories in positive ways.

Based on Norton’s (2000, 2001) study, Yashima and Zenuk-Nishide (2008) researched in the impact of learning contexts on proficiency, attitudes and L2 communication. It was revealed that some Japanese stay-home learners can attain same level of development in proficiency, attitudes and behaviour when compared to their study abroad counterparts, when they fully participate in a practice that is linked to an imagined international community.

3.5.3 Present communities of imagining (PCOLz)

Similar to the concept of ‘imagined communities’ is what is coined as ‘present communities of imagining’ (PCOLz) framework (Falout, Fukada, Murphey, & Fukuda, 2013), which has been proposed by a group of motivation researchers in Japan. Such a framework sees a language classroom as an open system that is co-adapting with the external environment; that is, it is influencing its context and is being influenced by it simultaneously. The framework is a multilevel model that incorporates three motivational mind-time frames: learners’ past (What is known as ‘antecedent conditions of the learner’), presents (‘present investments’ in English inside and outside the classroom) and futures (English-related possible selves). Falout and colleagues (2013) advocate the use of classroom activities that are specifically designed to emphasise the three mind-time frames as aforementioned. These activities include language learning histories (LLHs; Murphey & Carpenter, 2008), action logs (Murphey, 1993) and a 10-year class reunion (Fukada et al., 2011). These can help learners to re-interpret negative self-beliefs that are associated with their past academic setbacks, resulting in learners to focus on present investments as well as forming desired future self-guides.

3.6 Conclusion

In this chapter, I have looked at what personal vision and mental imagery is. When vision is emerged within personal development projects, it is known as personal vision and can give meanings and passion to one’s life (van der Helm, 2009). Similarly, imagery is mental pictures that are conjured up in the mind’s eye; and when it is used under certain conditions, it can exert motivational, affective and

cognitive functions. Here I have discussed some optimal conditions required for imagery to exert its motivational power, including image qualities; contrasting prospective imagery with reality; accompanying imagery with a concrete plan; using psychological temporal dimension; and using imagery perspectives. Research suggests that people's imagery ability (e.g. vividness, controllability, duration etc.) is trainable and is usually assessed by the use of self-report questionnaires. Despite its strength, imagery can have some negative effects, including a lack of control in conjuring up imagery contents, overconfidence, revelling in the imaginary successes, and distraction from the task at hand.

In the second part, I have examined possible ways to ignite learners' and teachers' vision and looked at the motivational interventions using vision and imagery (i.e. Magid, 2011; Oyserman et al., 2006). Finally, L2 theories related to vision have been outline, including 'Directed Motivational Currents' (Dörnyei et al.; in press; Muir & Dörnyei, 2013), 'imagined communities' (Norton, 2000, 2001) and 'present communities of imagining' (Falout et al., 2013); all of which provide exciting avenues to future research in L2 motivation.

Chapter 4

Dynamic Systems Theory

‘No man ever steps in the same river twice,
for it’s not the same river and he’s not the same man.’

— Heraclitus

4.1 Introduction

As can be seen in the previous chapter, recent research and theories suggest that vision and mental imagery could be a great motivating factor in language learning. Here I venture into a relatively uncharted territory in the field—the application of dynamic systems (DS) approach to L2 motivation. This theory can be used as an overarching framework to explain the interactions between different agents and elements of a system. In the first part of the chapter, I provide an overview of dynamic systems theory (DST), its origin and development, key characteristics and some metaphors that are used by DST researchers. In the second part, I focus on the methodological considerations that include the difficulties of researching DST and the shifting of traditional views in SLA research. Finally, I explore the possible research methods to overcome these problems, and examine three investigations in L2 motivation that adopt the DS approach.

4.2 An overview of DST: A theoretical framework for a DS approach

To study L2 motivation through the lens of DST, we must first understand what a system is. According to the Oxford Dictionaries (2014), a system is ‘a set of things working together as parts of a mechanism or an interconnecting network; a complex whole’. Examples of a system include a transport system, a heating system, a stereo

system or even a security system. However, a system that has several identifiable elements may be complicated but not complex (de Bot, Verspoor, & Lowie, 2007). Some systems, such as pulleys or other pieces of mechanisms in machinery, can be viewed as complicated instead of complex because they can be taken apart and reassembled. Systems that are complicated can be analysed, integrated and are viewed as more linear (Byrne & Callaghan, 2014). What then is a complex dynamic system? According to Dörnyei (2014, p. 81), a system that is considered complex or dynamic ‘if (a) it has at least two or more elements that are (b) interlinked with each other but which also (c) change independently over time’. An example of a dynamic system is a double pendulum, which is originally studied in a branch of mathematics. This device consists of two components: the ‘upper arm’ and the ‘lower arm’. When the upper arm is moved, the movement of the lower arm will follow, but its movement will change the trajectory the upper arm was in (Dörnyei, 2014, p. 81). Although this is only a simple dynamic system, it demonstrates the essence of DST: the components are interlinked and the elements can affect the other while each has its independent trajectory.

There is a question as to whether a dynamic system, such as a double pendulum, can be applied to ones that are operating in social sciences. In fact, systems involved in the social world are analogous to the ones in natural sciences, in that systems are embedded in each other in a hierarchical level. Nonetheless, applying the concept of dynamic systems to social sciences could be more complex than that of a double pendulum because many more inter- and intra-individual sub-systems exist. These sub-units are each functioning independently, though are all influencing the other at a different level (Dörnyei, 2014). Before further exploring the characteristics of a dynamic system, I shall first discuss the origin of the theory.

4.2.1 The origin of dynamic systems theory

Dynamic systems theory is originated from scientists starting to challenge some of the research traditions and adopting a DS frame of mind. A problem of using linear, cause-and-effect research paradigm is that variables are often examined in isolation, which means that researchers usually focus on group data and neglect the developmental paths of individuals. This means using cross-sectional statistical distribution of a particular state cannot do justice to the unique developmental process of a person, because such idiosyncratic developmental patterns will be lost when data are dealt with as an averaged whole in the population (van Geert & Steenbeek, 2005).

Dörnyei (2009b), in his book *The Psychology of Second Language Acquisition*, has provided examples of scientists challenging the traditional view of research, including biologist von Bertalanffy who proposes *general system theory* and objects the reductionism theories that explain the whole by the sum of its parts. Similarly, chemist Ilya Prigogine puts forward a notion of *dissipative system*, which is a system that is open to energy from outside, causing self-organisation of the components within the system. In addition, the work of biologist Conrad Waddington suggests that genes that encode the development of an organism are not the sole explanation for embryogenesis. The development of an organism is continuously being constructed, always giving rise to the necessary conditions for the next level of growth. Such a concept is influential in complexity theory.

Complexity theory has not only been applied to the sciences but also in other fields, such as business organisations and processes in trade such as supply and demand (Battram, 1998); developmental psychology (e.g. Thelen & Smith, 2006);

economics (e.g. Dopfer & Potts, 2008); sociology (Bryne & Callaghan, 2014). In the field of applied linguistics, Dianne Larsen-Freeman is a pioneer proposing the use of Chaos/complexity theory in SLA in 1997 and the idea was further developed from 2002 onwards. Together with Lynn Cameron, a seminal book *Complex Systems and Applied Linguistics* was published in 2008. To date, three books have been written specifically on this topic. Apart from the book published by Larsen-Freeman and Cameron (2008), one titled *A Dynamic Model on Multilingualism* was by Philip Herdina and Ulrike Jessner (2002), proposing that multilingualism, bilingualism and SLA should be researched using the DS approach. An edited manual on *A Dynamic Approach to Second Language Development: Methods and Techniques* was edited by Verspoor, de Bot, and Lowie (2011), looking at the development of individual learners. They focus on intra-individual and inter-individual variations over time, and the aim is to demonstrate the different ways of data collection and analyses using a DS approach.

Dörnyei (2009b) also dedicated a chapter specifically on DST in his book *Psychology of Second Language Acquisition* and it provides insights into the main features of DST, problems researchers are encountering, ways to research dynamic systems, and how the DS approach is associated with other related theories, such as emergentism and connectionism. And most recently, Zoltán Dörnyei, Peter MacIntyre and Alastair Henry (in press) have edited a new book titled *Motivational Dynamics in Language Learning*, which is devoted to the most recent research in dynamic systems theory in L2 motivation.

In addition to book-length publications, there are special issues of journals, including the one in *Applied Linguistics* (December 2006), which was co-edited by Ellis and Larsen-Freeman (2006) and a special 60th anniversary issue of the journal

Language Learning on *Language as a Complex Adaptive System* (December 2009).

A growing interest in DST is also evident in the applied linguistics conferences, where an increasing number of colloquia have been devoted to the topic. For example, a colloquium on *Motivation Dynamics in Second Language Acquisition* was convened by Dörnyei and MacIntyre in the American Association of Applied Linguistics (AAAL) annual conference in 2013. Without a doubt, researchers are increasingly involved in investigating how SLA can be explained in the framework of dynamic systems.

4.2.3 Key features of dynamic systems

Coming back to the characteristics of dynamic systems, a key focus of DST is to explore ‘how the interacting parts of a complex system give rise to the system’s collective behaviour and how such a system simultaneously interacts with its environment’ (Larsen-Freeman & Cameron, 2008, p. 1). Different names have been introduced to describe such a concept. The term ‘dynamic systems’ (or dynamical systems) is used to emphasise the changes in the system over time, while the concept of ‘complex adaptive systems’ (CAS) focuses on the adaptive nature of these systems (Larsen-Freeman & Cameron, 2008). Important characteristics of a dynamic system are outlined as follows:

- ***Complete interconnectedness.*** There is complete interconnectedness among all variables, so change in one variable will impact all other variables in the system. This also means that ‘every system is always a part of another system’ (de Bot et al., 2007, p. 8) and components in the systems interact with each other bi-directionally (Op’t Eynde & Turner, 2006).

- **Nonlinearity.** To understand nonlinearity, gaining an insight into linearity may be beneficial. The name ‘linear’ is originated from the fact that the set of solutions of linear equation forms a straight line in the plane, which means that linear relationships stay constant across time and space. On the contrary, nonlinearity means that variables do not always have linear relations to one another. That is, sometimes a great deal of effort may not lead to any results whereas the slightest energy could result in a huge ramification in the system. The emergent behaviour is disproportionate to its contributing factors (Nowak & Vallacher, 1998). Phenomena, such as the threshold effect¹ and the ceiling effect, are examples of nonlinear processes.
- **Self-organisation.** Novel development of a system can be explained by processes of self-organisation, which means that elements in the system develop and interact spontaneously, without centralised control (Eidelson, 1997) or without explicit instructions (Thelen & Smith, 2006). To this end, Dörnyei’s (2009b, p. 105) words rightly captured its essence:

[Patterns] emerge from the complexity of the system spontaneously, without any single component being in charge, having priority or privilege, or containing a pre-programmed instruction manual for the behavioural performance of the whole system – self-organization is the driver of change.

¹ A threshold effect is when ‘change in the effect is proportionate to change in causal element(s) until a particular point is reached when the change become disproportionate’ (Bryne & Callaghan, 2014, p. 18).

- ***Highly dependent on the initial state.*** Systems are highly dependent on their initial state and this is known as *the butterfly effect*. This is a description originated from metrology, which is based on Edward Lorenz's observations that some simulated weather systems are highly sensitive to initial conditions. This means that even a small change in the initial condition of the system (e.g. the flapping of the wings of a butterfly) may create a domino effect, causing great disturbances in the weather system. In summary, any small changes in a component could have wide ramifications at a particular point in time (Dörnyei, 2009b).
- ***The current state of the system depends on the preceding state.*** van Geert and Steenbeek (2005) illustrate an equation that explains the definition of a dynamic system, a means to describe how one state develops into another state over the course of time:

$$y_{t+1} = f(y_t)$$

There are various parts in this equation of dynamic systems, including state (y_t), variable (y), function (f), and time (t). The equation should be read as 'the value of y at time $t + 1$ is a function " f " of the value of y at time t ' (van Geert & Steenbeek, 2005, p. 411). This means that the equation illustrates how a specific state changes into another state over time ($t + 1$) and that a current state in a system is dependent on a preceding state. Because the equation is recursive or iterative in nature (i.e. y_t transforms into y_{t+1} , y_{t+2} , y_{t+3}), the change of one variable will have a domino effect on another variable. If we take an example of how individuals speak, the speakers'

behaviour is based on their past interactions, and current and past patterns of speech feed forward into future behaviour and interactions (The ‘five graces group’, 2009).

- ***Variation and stability.*** We can observe variability of L2 motivation from a short-term or longer-term timescale: greater fluctuations in L2 motivation are ultimately evident within a day or even a lesson, whereas the dynamics of L2 motivation may be smoothened with the increase and decrease in motivation following a stage-wise pattern from the perspective of a longer-term timescale. Intra-individual variability is particularly important especially prior to a state of change in a system; such fluctuations can be observed when a system is about to change its developmental trajectory (Thelen & Smith, 1994). Variability is an important criterion and should not be regarded as noise. And according to van Geert and Steenbeek (2005), in order to understand long-term dynamics of a developmental process, one needs to gain insight into the short-term dynamics of the phenomenon.
- ***Attractor states.*** As systems develop over time, they will settle into states known as *attractor states*, which are also preferred states of a system, ones that are analogous to a deep valley in a landscape (see field metaphor in Section 4.3.1). Although system trajectories may start at very different locations in the state space, if they begin within the basin of attractor, they may end up in the same final state—an attractor state (DeLanda, 2006). Although attractor states are relatively stable as a system resides in such conditions, they are still in flux and are not fixed. Examples of real-world attractors include long-term behaviours that appear to be more stable

overtime (Norton, 1995; cited in Larsen-Freeman & Cameron, 2008), revealing long-standing tendencies of a system.

- ***Phase transition.*** Phase transition denotes a discontinuity in a developmental change. Rather than having an increase of a continuous curve, there is a sharp change, in which ‘the growing variable jumps from one level (or stage) to the next without intermediary points (van Dijk & van Geert, 2007, p. 8).

A word of caution has been provided by Bryne and Callaghan (2014, p. 157) who contend that the use of terminologies such as ‘attractor’ can be useful, but we must use them ‘in relation to reality itself’ and not to ‘an abstract set of algebras founded on deductive reasoning alone’.

4.3 Metaphors

Different metaphors (e.g. field metaphor, mountain stream metaphor, force field theory, literary metaphor and ecological metaphor) have been employed to illustrate the dynamic nature in various fields. Each of them may capture some of the essence of the DS approach. Larsen-Freeman and Cameron (2008, p. x) encourage the use of analogies and metaphors as they pointed out that ‘it is quite natural to analogize; indeed, this is precisely one way new meaning is made’. Bryne and Callaghan (2014, p. 6) also argue that the concept of complexity goes beyond ‘merely metaphorical’ as ‘any description of reality is metaphorical’.

4.3.1 Field metaphor

Complex system can be depicted as a ball rolling in a landscape of hills and valleys. The landscape represents the ‘state space’ of a system with a collection of possible

states. When the ball is on top of a hill, it is very unstable and any disturbances can cause the ball to roll down. Such a condition is known as a repeller state. On the contrary, when the ball is in a deep valley, it is in a relatively stable state, which is known as an attractor state, which requires external energy in order to displace it from the position (Larsen-Freeman & Cameron, 2008; Dörnyei, 2009b).

4.3.2 Mountain stream metaphor

Mountain stream metaphor, proposed by Thelen and Smith (2006), compares the different patterns of water flow in a mountain stream to individuals' behavioural patterns and mental activities. In a mountain stream, various patterns of water flow exist, including water flowing in small ripples: some in a whirlpool, some in a spray and some in a large turbulent eddy. These patterns may persist for a period of time, from hours to days, but because there are different factors influencing the environment (e.g. the humidity of the air which determines evaporation rate and rainfall, the depth of the streambed, rate of precipitation and erosion), the pattern of water flow may change as a result. Both the regular and new patterns are the result of interactions among myriad of factors. Just as the different patterns of water flow in a stream, people's behavioural and thought patterns are 'product[s] of multiple, contributing influences, each of which itself has a history' (Thelen & Smith, 2006, p. 263).

4.3.3 Force field theory

One of the earliest dynamic theories is *force field theory* proposed by Lewin (1936, 1946; cited in Thelen & Smith, 2006). According to this theory that focuses on

personality development, a given physical environment only has meaning in relation to the state of an individual. The theory proposes that individuals' personality traits only exist within the setting they are exhibited and that people are free to roam dynamically in the force field (known as life spaces), interacting with various factors. The forces in the field may have pushing, pulling or conflicting effects depending on both the individuals' dispositions and the environment. Learning and developing means finding a new pathway and discovering a new niche in the life space; such a process is known as self-organising (Thelen & Smith, 2006).

4.3.4 Literary metaphor: Through the looking glass

van Geert (2008) uses an interesting analogy with a literary example from Lewis Carroll's (1871) *Through the Looking Glass*, a sequel to *Alice in Wonderland*, to illustrate the properties of the DS approach. The metaphor is made up of the setting of the story: 'the curious country', which resembles a chessboard divided up by brooks and hedges, and the people (van Geert, 2008, p. 180). Using this metaphor, the *state* or *state space* of a dynamic system is defined by the possible positions of Alice and the Queen (i.e. by a geographical x and y axes). *Time evolution* is the change of position over time, which is constrained by evolution rule or evolution term and this can be illustrated by Alice running, or taking iterative steps (i.e. one step at a time) to get to a destination. *Constraints* in the system are compared with the brooks and hedges that may lie between Alice and the Queen. As Alice has to walk on solid ground, a detour is needed if there are brooks and hedges in the path, denoting a shift of a trajectory as a result of the constraints. *Control parameters* are factors that control the path that Alice will take and they include the evolution rule in the curious country and how big each stride she takes. *Self-organisation* is a process

in which self-emerged patterns are developed as Alice visits the Queen more often. This is based on the assumption that although there are infinite paths she could take, this will be reduced to a limited number of paths because some paths will be trodden on more frequently than others, which results in the formation of patterns.

4.3.5 Ecological metaphor

Another metaphor is the *growth model* (van Geert, 1991) which describes the growth rate of language. van Geert (1991) compares the cognitive system of a developing person to an evolving ecological system. Skills, concepts and rules to be learnt are portrayed as cognitive species in a mental ecology. In this case, growth in one species either positively or negatively affects each other. Five heuristic principles have been proposed:

- (a) The human cognitive system can be described as an ecosystem composed of species (e.g. vocabulary, grammatical rules, concepts etc.).
- (b) Different relationships exist among the elements, including supportive (in which the growth of one element support the other), competitive (in which the growth of one element may cause a decline of another) or neutral (the elements do not affect each other).
- (c) The elements have different growth-rates and growth onset times.
- (d) Components in the ecological system are fighting for limited resources.
- (e) There is variability in the growth rate of cognitive species, which is a dynamic product of interactions among components in the system.

4.4 Shifting views in SLA research

Investigations in SLA have been adopting a traditional research frame, using the more static or linear approaches (Jessner, 2008; Dörnyei, 2009b). However, attention has been shifted to view SLA as complex and dynamic processes. As aforementioned, instead of using the traditional cause-effect explanations, DST, which is anti-reductionistic, is preferred (van Geert, 2000). It suggests that generalisations about individual learners are inadequate because statistical averages cannot describe any particular individual. In the same vein, cross-sectional research cannot do justice in capturing the developmental stages of individuals because it merely represents the *grand sweep of development* across participants. It remains obscure in the changes at an individual level over time (Larsen-Freeman, 2013).

This point can be illustrated by Verspoor, Lowie and de Bot's (cited in de Bot et al., 2007) study, which investigates the development of writing skills in eleven low intermediate high school EFL learners. The participants were asked to write a short journal entry; when the data was analysed as a group, the variable of *average sentence length* fluctuates approximately twelve words over a six-week period. However, different developmental patterns emerge when the data was analysed on an individual basis. The results of only two of the eleven students mirror the pattern of the group as a whole, which are categorised as stable throughout the period. Surprisingly, two students with the weakest performance produce the average sentence length of around twenty-two, which is almost double the length of the peak performance of other students. Enormous inter- and intra-individual differences exist even in a homogenous group and such differences can be 'concealed when averaged out' (de Bot et al., 2007, p. 17).

4.5 Difficulties of researching DST

Although investigators are starting to adopt a new approach to researching SLA, they have openly acknowledged the difficulties inherent within this framework. For example, van Geert and Steenbeek (2005, p. 408) comment that ‘applying dynamic systems theory is almost like begging for trouble’. Similarly, de Bot et al. (2007) maintain that there are some unresolved issues in DST, while van Geert (2007, p. 47) further reinforces de Bot et al.’s (2007) statement, believing that it is ‘over-optimistic’. Indeed, most attempts to get beyond a linear modelling by using a non-linear framework have mostly been unsuccessful (Byrne & Callaghan, 2014). And one of the difficulties in researching developmental processes is that the studies are too ‘coarse-grained to explain the actual processes of learning, pattern formation, and information processing that take place on a smaller time scales’ (van Geert, 2000, p. 68).

4.6 Methodological considerations in researching DST

Although it is difficult to operationalise a DS approach, scholars have considered some possible ways of approaching the subject. For example, Larsen-Freeman and Cameron (2008) have devised a sixteen-step procedure known as *complexity thought modelling*, while Bryne and Callaghan (2014) have offer what is four fundamental tasks, including *definition*, *description*, *trending*, and *the establishment of cause(s)*. Dörnyei (2009b), on the other hand, offers three approaches to address the issues raised in conducting DS studies, which include: (a) the modelling of non-linear systems using quantitative methods; (b) observing the workings of the whole system and the interaction of the parts instead of merely focusing on the mechanics of specific parts; and (3) locating alternative methodologies to replace traditional

research methodology. Dörnyei (2014) has also proposed the use of *retrodictive qualitative modelling* (RQM), which is further detailed in Chapter 5.

Undoubtedly, as seen in the previous section, the traditional deductive frame of reasoning may not be able to capture the many complexities in reality.

Researchers can use qualitative data to research into an actual developmental process, to study ‘how one state is transformed into another and by what mechanism’ (van Geert and Steenbeek, 2005, p. 413). In the following, I outline the complexity thought modelling proposed by Larsen-Freeman and Cameron (2008) and four fundamental tasks that are put forward by Bryne and Callaghan (2014).

4.6.1 Complexity thought modeling

Larsen-Freeman and Cameron (2008) have developed a 16-step procedure known as complexity thought modeling as a way to research complexity. They argue that the main focus should be on creating qualitative models of human behaviour, suggesting that a complex dynamic model can be used as an ‘analogical model’ for the system under investigation (Larsen-Freeman & Cameron, 2008, p. 40). The steps of the procedure are outlined as follows:

- Identify the different components of the system, including agents, processes, and subsystems.
- For each component, identify the timescales and levels of social and human organisation on which it operates.
- Describe the relations between and among components.
- Describe how the system and context adapt to each other.
- Describe the dynamics of the system:

- How do the components change over time?
- How do the relations among components change over time?
- Describe the kinds of change that can be observed in the system: steady change or discontinuous leaps from one state or mode of action, to another in phase shifts or bifurcations.
- Identify the contextual factors that are working as part of the system.
- Identify processes of co-adaptation with other systems.
- Identify candidate control parameters, i.e. the motors of change that seem to lead to phase shifts.
- Identify candidate collective variables that can be used to describe the system, before and after phase shifts.
- Identify possible fractals in the system.
- Describe the state space landscape of the system:
- Where are the attractor states in the state space (i.e. stabilities in the changing system)?
- How deep and steep are they? (i.e. How stable are the attractor states?)
- Describe the trajectory of the system in its state space. (i.e. What are common patterns of activity?)
- Identify regions of the state space that are most used by the system, and those which are seldom visited. (i.e. What does the system do out of all it could possibly do?)
- Describe what happens around attractors. (i.e. What kind of variability is there around stabilities?)

- Identify possible emergence and/or self-organisation across timescales and/or levels of human organization.

This model helps researchers and practitioners use complexity theory to analyse a problem, to form an actual model through data collection, and to develop intervention. These steps allow them to envision the system when particular parameters are changed (Larsen-Freeman & Cameron, 2008).

4.6.2 The four fundamental tasks

Byrne and Callaghan (2014) have proposed four fundamental tasks to investigate the complex social world, including *definition, description, trending, and the establishment of cause(s)*. For definition, they recommend researchers to ‘define the nature and form of the real things which are of interest to us’ (p. 154). This can be done by using case studies because they are seen as complex systems. Bryne and Callaghan (2014) quote Abbott’s (1992, p. 65) description of cases to illustrate the fact that complexities can be explored through the construction of narratives:

The move from population/analytic approach to case/narrative approach is thus a move first to a new way of regarding cases – as fuzzy realities with autonomously defined complex properties – and a move second to seeing cases as engaged in perpetual dialogue with their environment, a dialogue of action and constraint that we can plot.

While building cases, Bryne and Callaghan (2014) advise researchers to pay attention to the components and how they interact. In other words, researchers should determine the taxonomy of a system and conduct network analysis (i.e. to

investigate the relations of the taxonomy). The need for measurement is stressed both for classification and network analysis.

For description and trending, the way to measure complex systems is important, and this can be done by identifying ‘kinds’ (i.e. archetypes/types) in terms of attractor cloud in state spaces (Bryne & Callaghan, 2014, p. 159). This means that instead of viewing different cases lined up in a continuous, ordinal scale (i.e. as an *infinite ordinal series* proposed by DeLanda, 2006), Bryne and Callaghan (2014, p. 159) recommend the use of nominal measurement. They advocate that there is ‘limited diversity’ in a state space (because there is only a small number of well-populated location which has clusters of cases); similar cases acquire ‘syndrome-like characters’, revealing interconnections between these cases. Simply put, case diversity is limited because when there is organised complexity, the system will not settle in random locations in a state space, but will only occupy ‘specific, limited but multiple domain within that state space’, and these domains are known as attractors. Complex systems can be viewed as ‘traces of those systems’, whose characteristics can be described by exploring their trajectories at multiple time points (p. 160).

4.7 Applying DST as a research tool in L2 motivation research

So far, since new research interests in the complex interactions among self, environment and L2 motivation are becoming evident, we have observed a paradigm shift in L2 motivation research. In this section, I examine two approaches that focuses on the changes and dynamics of L2 motivation, including *Dörnyei and Ottó’s process model of L2 motivation* (1998) and *a person-in-context relational*

view of motivation (Ushioda, 2009). I then summarise three studies in L2 motivation that have applied the DS approach as a research tool.

4.7.1 Dörnyei and Ottó's process model of L2 motivation

Dörnyei and Ottó's (1998) process model essentially looks at a sequence of actional events and focuses on how motivation influences the different phases. The model has two key dimensions:

- *Action sequence.* This focuses on how learners transformed their initial desires into goals, intentions and eventually into actions, goal achievement and evaluation.
- *Motivational influences.* These include different factors, such as energy sources and motivational forces, which propel a person's behaviour.

In addition to the two dimensions, based on Heckhausen and Kuhl's (1985) *action control theory*, Dörnyei and Ottó's model has three main phases of motivated behavioural processes, including preactional phase, actional phase and post-actional phase.

- *Preactional phase.* This is the phase that precedes the one when actions are taken and it is comprised of three subprocesses, including goal setting, intention formation and the initiation of intention enactment. Some of the motivational influences that are associated with this phase consist of various goal properties (e.g. relevance).
- *Actional phase.* This is the phase when actions are carried out and are executed, therefore the name 'executive motivation' (Dörnyei & Ushioda, 2011, p. 65). For example, this is when a language learner actively looks for a

language exchange partners and buy learning materials/phase books in the target language. The person is no longer merely contemplating but is implementing his/her plans. There are three subphases within this phase: *subtask generation and implementation* (which is to divide a task into different short-term goals), an ongoing *appraisal* process to monitor the progress towards a goal, and *action control* mechanisms or self-regulatory strategies.

- *Post-actional phase*. This is a phase of retrospection and reflections, a period when the goal has been completed or when the task is interrupted by certain incidences, such as a holiday. Further internal standards, action-specific strategies and new goals can be developed.

Although Dörnyei has, in numerous occasions, identified some weaknesses of the model, including its limited power to define actional process in a real classroom setting (Dörnyei & Ushioda, 2011), the model does capture the dynamically changing motivation of individuals in a sequential manner and has started to see *change* in L2 motivation as an important aspect.

4.7.2 A person-in-context relational view of motivation

Another theoretical concept that is pertinent to DST is what Ushioda (2009) calls a *person-in-context relational view of motivation*. Instead of focusing on psychometric measurements and positivist paradigms, Ushioda (2009, p. 215) advocates an approach which views motivation as ‘emergent from relations between real persons, with particular social identities, and the unfolding cultural context of activity’. She emphasises *persons* rather than learners or individual differences (i.e. statistical numbers that focus on the averages of an aggregated group). Similar to the DS

perspective, Ushioda does not regard context as a stable independent background variable but one that has co-adaptive, relational connections with an individual, one that is dynamic, complex and non-linear. Such a concept sheds light to the data collection method and data analysis in a DS perspective. Ushioda (2012, pp. 12-3) neatly encapsulates the concept in a later article:

By this, I mean a focus on real persons, rather than on learners as theoretical abstractions; a focus on the agency of the individual person as a thinking, feeling human being, with an identity, a personality, a unique history and background, with goals, motives and intentions; a focus on the interaction between this self-reflective agent, and the fluid and complex web of social relations, activities, experiences and multiple micro- and macro-contexts in which the person is embedded, moves and is inherently part of. My argument is that we need to take a relational (rather than linear) view of these multiple contextual elements, and see motivation as an organic process that emerges through the complex system of interrelations.

4.7.3 L2 Motivation from a complex dynamic systems perspective

Dörnyei (2009b, p. 218) has recently argued that ‘The L2 Motivational Self System’ presents a ‘motivational landscape with three possible attractor basins’: one that revolves around (a) the internal desires of the learner, (b) the social pressures exerted by learners’ significant others, and (c) the third around the actual L2 learning experience. In this latest extension of his motivation theory, Dörnyei argues for the compatibility of DST and L2 motivation by assuming that any powerful global attractor for an individual is a conglomerate of cognition, motivation, and emotion,

and he maintains that future vision can be seen as a prime example of such a conglomerate. When viewed from a complex systems approach, each unit can be seen as a dynamic subsystem that has interactions with other systems.

Most recently, motivation researchers have started to develop new research initiatives in the dynamics of L2 motivation (e.g. Dörnyei & Tseng, 2009; MacIntyre & Legatto, 2011; Nitta, 2013; Poupore, 2013). For example, Poupore (2013) has examined the dynamic psychological processes underlying task performance. Conducting a classroom-based research study with 38 Korean intermediate English learners, he investigates how various factors interact to influence learners' task motivation. Motivation was measured at different stages of the task including pre-task, during task, and post-task. Apart from task motivation, variables such as affective and social variables (i.e. task enjoyment, success expectancy, relevance, utility and perceived difficulty), effort, emotional state, perceived group dynamic and task condition were also measured. A decrease in task motivation was found to be caused by a different combination of motivational, socio-affective factors and task conditions. For example, although Task 5 was mainly influenced by the intended and reported effort, and task relevance, Task 14 was affected by the participants' emotional states. It was interesting to note that even when the participants maintained a high level of enjoyment throughout the task or even when much effort has been put into a task, learners' task motivation could still decrease, resulting in a downward phase shift. It was concluded that 'task motivation is dependent on the interaction of all its related affective variables, not just one' (p. 20).

In another study, MacIntyre and Legatto (2011) explore the moment-to-moment dynamics of Willingness to Communicate (WTC) using a newly developed approach known as *idiodynamic approach*. In this method, the performance of a

communication task is recorded and during the immediate playback, the participant completes a moment-to-moment rating of WTC using software that produces a graph showing fluctuations in WTC. Afterwards, stimulated recall is conducted to explore the factors causing fluctuations in the graph. The results suggest that there is a significant difference in the mean WTC ratings among the speaking tasks. Intra-individual consistent patterns are shown across the tasks and also within each individual. For example, a participant consistently shows high WTC, whereas another participant shows mostly flat rate in WTC. A key reason for a decline in WTC for this participant is the inability to search for L2 vocabulary. The study reveals the dynamics between the participants' trait-like WTC and their moment-to-moment WTC ratings associated with the tasks. For example, even when a participant with a high WTC-trait score, her WTC rating may still decline especially when faced with an unfamiliar topic.

From a macro-perspective, Nitta (2013, p. 270) has conducted a longitudinal study, focusing on the complexity of student motivational systems of a class of first-year English majors at university. The concept of *student motivation* is used to explore the motivational changes over a period of time. From a DS point of view, student motivation is said to be 'one particular type of situation-specific motivation' and 'an open system... because student motivation emerges and evolves as a consequence of complex interactions between motivational orientations and the classroom environment' (Nitta, 2013, p. 270).

Administering a weekly Online Motivational Questionnaire (OMQ), it was found that the initial states of student motivation are significantly associated with cultural interest and instrumentality, and the result could be due to the content of the classes. Despite the fact that student motivation fluctuates frequently with large

amount of changes at the group level, clear trajectories are observed. Small differences at the initial states among different classes are amplified in most cases, although it was noted that ‘initially high motivation does not guarantee its maintenance’ (Nitta, 2013, p. 280). Zeroing in on the individual changes in student motivation, Nitta uncovers different patterns of changes, including instability–stability (point attractors), stability (limit-cycle attractors) and stability–instability (strange attractors) under the same learning environment.

4.8 Conclusion

In this chapter, I have reviewed some key characteristics of DST, an overarching theoretical framework that views the world as systems that consist of interacting agents and elements. Some key features of dynamic systems include having complete interconnection among all the components, not operating with an explicit centralised control but in a self-organised emergent manner, and functioning in a non-linear relationship. In addition, the current state of a system depends on the preceding state, and it is highly dependent on the initial state, which suggests that a small difference in the initial condition can have a huge ramification on the system. Systems are also characterised by attractor states (i.e. the preferred states) and phase shifts when a system markedly changes its developmental trajectory. Different metaphors have been employed to illustrate the dynamic nature of systems, including field metaphor, mountain stream metaphor, force field theory, literary metaphor and ecological metaphor.

As can be seen, SLA researchers are becoming more inclined to adopt the DS approach in research: instead of merely identifying an averaged representation of

development across L2 learners, they focused on the idiosyncratic developmental trajectories of individuals. And although investigators have acknowledged the difficulties in conducting research in DST, different methodologies have been proposed, including complexity thought modelling (Larsen-Freeman & Cameron, 2008), retrodictive qualitative modelling (Dörnyei, 2014) and ‘the four fundamental tasks’ consisting of definition, description, trending and establishment of cause(s) (Byrne & Callaghan, 2014).

In the last part of the chapter, I have examined two theories that are related to the DS approach, including Dörnyei and Ottó’s process model (1998) and a person-in-context relational view of motivation (Ushioda, 2009), and summarised three L2 motivation research that have utilised the DS approach as a research tool.

Chapter 5

Methodological Considerations

5.1 Introduction

Choosing the methodology that aligns with research questions is a fundamental step in research. Here, in order to give readers an idea of the primary research context, I first provide a brief overview of the education system in Hong Kong and information on the two research sites (Section 5.2). This chapter then describes how the research methods and processes worked in the studies (Section 5.3) to investigate the properties of possible selves, vision and the complex dynamics of L2 motivation. This is followed by a documentation of the data collection processes (Section 5.4) and the data analysis procedures (Section 5.5). Finally, it is pertinent to consider some ethical issues that were raised in conducting these studies (Section 5.6).

5.2 Research context

The education system in Hong Kong is comprised of six years of primary schooling starting from the age of six. Students are grouped into three bands of achievement (bands 1, 2, & 3) at the end of their primary schooling. They are placed in secondary schools according to students' internal school results that are calibrated against previous academic standards of the school in external assessments (Carless, 2005). Secondary school instruction has traditionally been seven years followed by three years of university, but a recent major educational reform in 2009 turned the system into one of six years of secondary schooling and four years of university (Lee, 2012). Such a reform replaced two traditionally high-stakes examinations that took place at the end of Year 11 (Hong Kong Certificate of Education Examination) and Year 13

(Hong Kong Advanced Level) into one exit examination known as Hong Kong Diploma of Secondary Education.

The secondary school students who were recruited in Study I and II are from a band one secondary school in Hong Kong that uses English as a medium of instruction². The school was founded by a religious group and is located in a residential area, which is considered to be a lower-socioeconomics community in the New Territories (the Northern part of Hong Kong). According to the information provided by a teacher informant, students who study in this school usually reside in the same area and the majority of them do not come from affluent families. Some students may not even have visited the Hong Kong Island³, where the major business hubs are located in the city.

According to the official website of the school, the institute aims to foster a whole-person approach to education, paying particular attention to students' Chinese and English language abilities. English is used during morning assemblies and student union election campaigns, and students are encouraged to converse in English with their teachers. English activities, such as drama courses, English speaking contests, and local speech competitions, as well as immersion and exchange programmes to foreign countries, are actively promoted. Apart from the emphasis on language, students are supported in the development of other generic skills, such as aesthetic sense. For example, each student is encouraged to take up at

² English is used in most lessons apart from ones including Chinese language, Chinese History, Mandarin, Chinese literature, religious studies, visual arts, liberal studies and physical education.

³ Hong Kong Island is approximately an hour away from the school by subway.

least one musical instrument. This particular school was selected as a research site due to a personal contact with an English teacher who was employed at the institute.

The specific research context in Study III was set in a university in Hong Kong, where English is also the medium of instruction. This research site was chosen since I was teaching different academic courses at the language centre. This particular institute is a mid-sized university that has a high ranking among the universities in East Asia. According to the university website, some of its educational aims are to enhance ‘intercultural understanding and global citizenship’ and to develop ‘communication and collaboration’. Pertinent to the learning of English, university students are encouraged to develop cultural understanding and to engage with people from different backgrounds/ethnicities. They are expected to be able to communicate effectively in academic, professional and social settings. The university has a rich multi-cultural atmosphere as there are ten per cent of international students from more than forty countries (QS Guides, 2014) and this creates a conducive L2 environment for local students. At the time of the study when most degrees consisted of three-year curricula, undergraduates at this university were required to take two ‘English for specific purposes’ courses, which amounted to six course credits. First and second-year university students were required to take semester-long English courses that were tailor-made to their majors.

5.3 Research designs and research processes of the four studies

5.3.1 Retrodictive qualitative modelling (Study I)

The aims of Study I were to identify learner archetypes and signature dynamics in the L2 classroom and to examine the predictability of dynamic systems. As Dörnyei

(2014) suggests, if there is complete randomness and indefinite variability in a system, attempting to detect outcome patterns would be futile. Yet, in reality we find a certain degree of predictability and a limited range of outcome patterns. Some regularities and recurring patterns are observed as a result of the self-organisation capacity of systems. Systems can self-organise the components into a few preferred mode of behaviour.

To identify the dynamic system outcomes and longer-term behavioural patterns, Dörnyei (2014) proposes the use of *retrodictive qualitative modelling* (RQM), which emphasises the use of retrodiction. This means that the common way of conducting research is reversed: system outcomes (or attractor states) are first examined and the developmental routes are analysed subsequently. Using the concept of RQM, Dörnyei (2014) outlines a three-step research template. The first step involves the identification of salient student types in the classroom and this can be done by conducting interviews with both teachers and students in focus group discussions. The goal is to create a rich description of each archetype with a list of characteristics that would contain cognitive, emotional, and motivational components (e.g. motivated + low-proficiency + unconfident). Having established the prototypes, the informants will be asked to identify actual students who fit each archetype. These students will then be invited to take part in semi-structured interviews to produce a *saturation* of data (see Appendix A for the interview questions). Thirdly, qualitative data analysis involving identifying the system's main components and the main dynamic patterns—that is, underlying signature dynamics—as system outcomes is conducted. Dörnyei (2014) suggests that five or six students representing the different learner archetypes are sufficient in providing a comprehensive picture of the motivational landscape of a particular class. The key

here is to specify the essential movements and developments within the system that produces each unique learner type, and to ‘understand why a particular student ended up in one attractor state (learner type) and not another’ (Dörnyei, 2014, p. 85).

5.3.2 Mixed methods approach (Study II)

The purpose of Study II was to examine whether there are links among various sensory, imagery capacity, future L2 self-guides and criterion measures in two target languages (English and Mandarin). To do so, a mixed method approach was employed (using a questionnaire survey and post-survey focus group interviews).

Mixed methods research is the combination of different research methods in order to understand a particular phenomenon of research interest. It usually refers to the combination of quantitative and qualitative methods, although it can also be a grouping of more than one quantitative method in a quantitative research design or more than one qualitative method in a qualitative research design (David & Sutton, 2011). Mixed methods research could be more advantageous in examining complex educational or social issues, in verifying findings through triangulation, and in reaching multiple audiences (i.e. reaching qualitative and quantitative researchers) (Dörnyei, 2007; Teddlie & Tashakkori, 2009). For this particular study, the approach can broaden the breadth (through a survey) and depth (through in-depth interviews) in the investigation. In particular, it follows a QUAN → qual methodology (Dörnyei, 2007). That is, the approach consists of a heavy emphasis of a questionnaire survey, followed by focus group interviews. Conducting the survey first and the focus group interviews afterwards allows researchers to identify the emerging themes derived from the quantitative results. This helps examining the ‘generalisable patterns and relationships across a large dataset’ (Dörnyei & Ushioda, 2011, p. 62) and provides a

broader picture of a phenomenon. These results can then be further explored in the post-survey focus group interviews (David & Sutton, 2011), helping researchers to establish the factors associated with the results found (Blaxter, Huges & Tight, 2010).

The instrument used in this study was originally developed by Eid (2008); the motivational measures used were based on Taguchi et al.'s (2009) questionnaire, the visual and auditory style scales on Oxford and Chi's Learning Style Survey and Reid's Perceptual learning Style Preference Questionnaires, and the imagery capacity scale on established imagery questionnaires in Richardson (1994) (see Appendix B for the questionnaire in English and Appendix C for the translated version; more information regarding the instrument will be given in Section 7.4.2).

5.2.3 Intervention study (Study III)

This study aimed to explore the impact of an imagery training intervention conducted in a credit-bearing, English for specific purposes (ESP) course for Chinese university students. The intervention – contextualised within a 12-week compulsory university English course for second-year science students in Hong Kong – consisted of three components: in-class visualisations, the creation of an Ideal Selves Tree and language counselling. Several success criteria were employed, including the measurement of (a) the qualitative and (b) quantitative change of possible L2 selves, as well as (c) students' feedback on the intervention.

To explore the impact of the intervention, a mixed methods approach was utilised to collect both qualitative and quantitative data. More specifically, pre- and post-intervention surveys, as well as focus-group interviews were used.

Questionnaire items were taken from an established motivation inventory in Ryan

(2009) and questions concerning the students' evaluation of the intervention were also included in the second survey (see Appendix E for the questionnaire items and Appendix F for the interview questions). Unlike the emphasis placed on quantitative data in Study II, this study takes up a concurrent design where both the qualitative interviews and the quantitative survey were used in a parallel manner. The results from both sets of data were then combined in the interpretation phase (Dörnyei, 2007).

5.2.4 Qualitative study (Study IV)

As mentioned in Chapter 2, the L2 motivational Self System has been empirically validated by numerous questionnaire studies, which has yielded valuable insights regarding the motivational power of the Ideal L2 Self. Nonetheless, in comparison, only a dearth of qualitative studies has been conducted to examine the actual developmental processes of the future self-guides. Using surveys in L2 Motivational Self System research is somewhat restricted in that 'the operationalization of the construct is necessarily limited by the imagination of the researchers who develop the scales' (Irie & Brewster, 2013, p. 112). To understand the complexity of the development of an integrated vision, this study explored the issue using four semi-structured in-depth, face-to-face interviews.

5.4 Data collection

Since most of the details concerning data collection are described in the individual chapters in Part Two, here it is more pertinent to explain the principles behind the way I conducted the interviews and how the surveys were conducted.

5.4.1 Collecting qualitative data through in-depth interviews

Interviews are seen as ‘special forms of conversation’, a way of ‘generating empirical data about the social world by asking people to talk about their lives’ (Holstein & Gubrium, 2002, p. 112). Conducting interview is a very important component in a qualitative research study as data will be elicited from the participants. As this is an occasion when interviewees voice their experiences and perceptions explicitly, it is therefore vital to build strong rapport with participants and help them feel at ease.

Research qualitative interviews may be compared to counselling interviews and some fundamental characteristics of a counselling relationship can be applied in a research interview. Building good rapport with interviewees is especially important for those who are quiet by disposition or when discussing relatively sensitive issues, such as a person’s failures at school. In any case, Rogers’ (1957) humanistic approach of counselling with the three core conditions of ‘empathy’, ‘genuineness’ and ‘unconditional positive regard’ are of great importance here. In order to be empathetic, the interviewer is required to be sensitive to the emotions and to have the ability to enter the world of the interviewee. The interviewer should show an understanding of what the interviewee is going through and to be in his/her shoe. Genuineness means being open and explicit regarding what he or she thinks or feels. Unconditional positive regard is a genuine acceptance of the other person as a valuable human being. These core conditions are ones that I applied in the research interviews through the use of active listening skills and open questions.

Good use of body language, such as the use of eye contact and posture, could be conducive to a non-threatening atmosphere, in which the participants can articulate their concerns. Skills such as mirroring (i.e. the interviewer mirroring the

postures of the interviewee), paraphrasing what has been said by the interviewee can also be used in a research interview. Establishing trust and rapport with participants of quieter dispositions may not be easy for the first time, especially when the interview has been set up by a gatekeeper. Particularly for Study I, I looked for ways to interact with the participants in informal situations (i.e. through conducting drama workshops at the school) and to become better familiar with some of the participants as much as possible. Such an approach resonates with a microethical framework known as 'ethics of care', which focuses on the researchers' sensitivity and empathic responses in relation to the emotional needs of the participants (Kubanyiova, 2008; 2013a).

In summary, to gain insights into the participants' inner world, it is crucial to be well-equipped as a qualitative researcher. Various practical factors play a part before and during an interview (David & Sutton, 2011). As a researcher, I tried to create an ideal interview setting by ensuring that there was a suitable place for the interview (e.g. by booking a room), arriving on time, checking my recording equipment and having the necessary paperwork, such as the informed consent. Warming up with the participant before the audio recorder is switched on is also vital. Some other technicalities of a qualitative interview should also be noted, including bringing spare batteries or even better a spare digital recorder so that two recordings are made for each interview. It is also important to try the audio recorder out in a particular setting as some interviewing rooms may have acoustic problems. This will help avoid having some poor quality recordings, which will be difficult to transcribe later on.

5.4.2 Conducting focus group interviews

In Study III, pre- and post-intervention focus group interviews were employed to maximise the number of participants and this was a practical necessity given limited time and resources. In Study I, a teacher focus group interview was also conducted to elicit different learner archetypes as a joint effort.

When conducting group interviews, group dynamics may divert the discussion to a particular direction or cause silences. The researchers (i.e. the data collector and I) also tried to generating diverse and different viewpoints, creating a safer environment for the participants in discussions (Blaxter et al., 2010). As confidentiality could also be an issue, the researcher cautioned to remind the informants that the things said during the session should ‘stay within the room’ and therefore remain confidential.

5.4.3 Quantitative data collection

For Studies II and III that deployed a survey, the investigations were based on convenience or opportunity sampling. This means that the target populations in the studies were chosen because of easy accessibility (as aforementioned in Section 5.2) and the participants’ willingness to volunteer (Dörnyei, 2007). In Study II, a data collector (who was also the gatekeeper and an English teacher of the school) administered the survey to five Year-8 classes during home period, and the students were informed about the study and the purposes prior to the actual survey. They were told that they had complete freedom and choice in participating in the study and their performance would not affect their grades. The students were informed of the potential benefits of participating in this study, including the possibility of raising their metacognitive awareness of their language learning style and L2 motivation;

they would also have a taste of being a participant of a research study and would be able to obtain the results of the study at a later stage.

5.5 Data analysis

5.5.1 Thematic coding analysis

Thematic coding analysis was used to analyse the qualitative data generated in all the studies. In the first phase of thematic coding analysis, I transcribed and translated the interview recordings, and I checked the transcripts against the original recordings for accuracy. I then further familiarised myself with the data by reading the transcripts several times, which allowed me to be thoroughly immersed in the narratives. During this stage, notes were made as I sought for general meanings and patterns in these first readings. Having familiarised myself with the contents of the transcripts, I conducted the second phase of thematic coding by identifying texts (including words, phrases or paragraphs) that have the same theoretical or thematic idea, and I labelled them using the same code (Gibbs, 2007). As I was reading through the transcripts, I generated codes that were associated with the research questions of the study. In study I, various factors that affected each participant's L2 motivation in different phases of their academic lives, including environmental, social and personal factors were examined. For study IV, examples of codes created include 'the Ideal LP Self', 'the Ought-to LP Self', 'the Ideal Christian Self' and 'the Ought-to Christian Self', 'events', etc. Then, relevant phrases or chunks of texts were marked with different codes using a highlighter pen.

In the third phase, having completed the initial stages, the list of codes was grouped into a smaller number of themes that captured some important elements of the research questions (Robson, 2011). In the case of Study I and IV, this included

identifying the attractor states and phase shifts in the state space. Coding was carried out multiple times until the list of codes and themes were refined and a coherent pattern emerged.

In the fourth phase, I used concept maps and networks (sets of boxes with arrows) to visually identify the relationships between the themes. In the case of Study IV, this included the visual conceptualisation of how the LP and Christian selves came into integration in a timeline. Similarly, I constructed diagrammatic representation of how the agents and elements in the system evolved through time, which was conducive to the providing of a general picture of the data set. Some connections between themes were made at this point. Finally, in the last phase, I tried to explore the meaning of the themes through noting patterns, themes and trends. I also grouped similar patterns of characteristics together and made contrasts and comparisons between data sets.

5.5.2 Analysing quantitative data

The questionnaire data for Study II and III were all coded in SPSS (version 18.0). Cronbach's alpha coefficient was processed to establish the internal consistency of the scales. For Study II, Pearson product-moment correlations were used to explore the relationship between the future self-guides, various criterion measures, and sensory-related learning style preferences. Correlations and multiple correlations were conducted to determine the relationships between the future self-guides and the various sensory-related measures. Paired samples *t*-tests were processed to compare the future self-guides across the two target languages. For Study III, parametric paired samples *t*-tests to explore whether there were statistical differences in students' Ideal and Feared L2 Selves were used.

5.6 Research ethics

The term *ethics* refers to ‘the systematic study of our formalization of rules concerning the separation of good conduct from bad’ (David & Sutton, 2011, p. 30). To the highest standards in research, any studies involving human participants should be ethical in every stage of research, ranging from the very start when the study is designed to its implementation to the use of its findings. To this end, I considered ethical implications as I designed and implemented the investigations. Research ethics approvals were sought and obtained from the School of English.

Kubanyiova (2013a) outlines the general ethical criteria that should be met, including *respect for persons* (i.e. protecting the well-being of the research participants), *beneficence* (i.e. doing no harm to the participants), and *justice* (ensuring research benefits for the participants). In the present studies, research ethics were achieved by using informed consents. Doing so, the informants were provided with an opportunity to choose to participate in a study on their own which is free from coercion, deceit or manipulations. During this process, not only were the participants informed about the details of the study and what it entailed, they were also told how their personal information will be handled.

To respect the participants’ privacy, confidentiality and anonymity, pseudonyms were used in this thesis. Anonymity means that I did not record any unnecessary personal details of the participants, such as names, addresses and so on. In situations when sensitive information (e.g. the place of work for a participant in Study IV) was elicited by the researcher, such information was not disclosed in the reports. Any information that can identify an individual was kept separately from the data collected. Similarly, much care was taken in handling interview recordings,

especially when the data was rich in personal details of the participants. Such data was stored separately and was erased once the analyses were finished. In a questionnaire survey in Study II and III in which hundreds of participants were involved, confidentiality was achieved by assigning each participant a number or an identifying code (David & Sutton, 2011).

To ensure the benefits of the participants, I adopted ‘the position of teachers’ aide’ (Hobbs & Kubanyiova, 2008, p. 505) in the secondary school research site, where I held English drama workshops as a way to alleviate teachers’ workload. I also showed my gratitude through sending them some snacks and a thank-you letter. For the student participants who took part in the in-depth interviews and questionnaires in Studies I, II and III, drinks/snacks were provided as a token of appreciation.

In summary, prior to conducting an interview or a questionnaire survey, the themes, aims and objectives of the research were introduced to the participants who were given the choice to withdraw. At the end of an interview, experiment or questionnaire, the data collectors also debriefed the participants by explaining the rationales of the study and answering any questions raised by the participants.

5.7 Conclusion

In this chapter, I have first provided information regarding the two main research sites (a secondary school and a university in Hong Kong) and the macro-environment of these sites; that is, the current situations in the education system of the city. Then, I have summarised the research methods and processes that were employed in the four empirical studies respectively, including the use of (a) retrodictive qualitative modelling, (b) mixed methods approach, (c) an intervention

study, and (d) qualitative interviews. In addition, I described the data collection method that is linked with qualitative in-depth interviews, focus group interviews and questionnaire data collection. Techniques in analysing qualitative data (i.e. using thematic coding analysis) and statistical data were also outlined. Finally, ethical considerations revolving around the studies have been raised.

Part Two: Empirical Studies⁴

⁴ It is worthy to reiterate that since the studies in this section are intended to be self-contained reports, they may, therefore, contain information that has already been presented in the literature review section.

Chapter 6

Learner archetypes and signature dynamics in the language classroom: A retrodictive qualitative modelling approach to studying L2 motivation (Study I)

6.1 Introduction

This study explores the use of ‘retrodictive qualitative modelling’ (RQM), a novel approach described for L2 research by Dörnyei (2014) that involves the identification of learner archetypes and motivational patterns in empirical research. The method reverses the traditional way of conducting research; it first examines the outcome – that is, the end-states – and then traces back the developmental trajectories leading to this outcome. Situated in a Hong Kong secondary school, the project was started by first asking a teacher focus group to identify salient learner archetypes in their classrooms (Years 7 to 9), and on the basis of these, in-depth interviews were conducted with one prototypical learner from each group. As a result, insights into the ‘signature dynamics’ of the motivational system associated with each prototype were gained. A key focus in this chapter is on evaluating RQM in action. First, the processes in which teachers identified learner archetypes are reported and thereafter an in-depth analysis of the system dynamics of these students is offered. In the final discussion, I list the main methodological lessons learnt from applying RQM.

6.2 Complex, dynamic systems and ‘Retrodictive Qualitative Modelling’

As has been pointed out in Chapter 4, we face serious methodological challenges when we conduct empirical research within a dynamic systems vein. At the most

general level, the fundamental issue is that the outcomes of the operation of dynamic systems – particularly ones that involve human beings – are difficult to predict as it is virtually impossible to know in advance how the various factors will interact with one another (Haggis, 2008). This has been explicitly highlighted by Diane Larsen-Freeman and Lynne Cameron (2008, p. 75) who draw attention to the fact that ‘[the] behaviour of a complex system is not completely random, but neither is it wholly predictable.’ Limited predictability and the inability to enumerate potentially relevant factors in advance of conducting research pose very real problems for researchers. It was against this backdrop that Dörnyei (2014) proposed ‘Retrodictive Qualitative Modelling’ (RQM) as a possibly meaningful way forward. He suggested that researchers can capitalise on the system’s *self-organising capacity* – the propensity to increase the orderly nature of the initially transient, fluid and nonlinear system behaviour – summarising this basic assumption in the following way:

As a result of this self-organisation process, many – if not most – complex systems display a few well-recognisable outcomes or behavioural patterns (e.g. crystallized types, skills, schemas or achievement configuration) rather than the unlimited variation that we could, in theory, anticipate in an erratic system. The existence of these systematic outcome patterns, in turn, opens up a meaningful avenue for researching dynamic systems by means of *‘retrodictive qualitative modelling’*. (Dörnyei, 2014, pp. 84–5)

Although ‘self-organisation’ may sound like an abstract concept, the actual phenomenon is in fact likely to be familiar to classroom practitioners; whereas system dynamics could in principle produce indefinite variability in a classroom with

an infinite range of emerging learner types, in reality we tend to find a certain degree of predictability and a limited range of patterns in most situations. So, for example, even if we visit a classroom in a very different learning context from the one we are used to, before long we will start to recognise familiar learner behaviours and attitudes. These recurring patterns are related to the fact that systems tend to self-organise components into a few preferred modes of behaviour or functionally useful units. van Geert (2008) has neatly illustrated this idea using the fictional characters Alice and the Queen from the children's story *Through the Looking Glass*. Although there are an infinite number of possibilities for Alice to walk to the Queen, some paths will become more salient as they will be trodden more often, and over time, the number of possible paths to the Queen will be reduced to a small number of trajectories actually used. Indeed, this limited variability has recently been highlighted by Byrne and Callaghan (2014, p. 197) as a major consideration in analysing complex systems:

The key aspect of complex systems which gives us some purchase on resolving this dilemma [of how to predict future outcome states in complex systems] is that they do not have an infinite set of possible future states but rather a limited set of more than one but less than too many to comprehend.

Thus, RQM utilises the regulating force of self-organisation that makes system behaviour predictable and therefore researchable. The key word is *retrodiction* in that RQM reverses the traditional way of conducting research; first we identify the end-states (or outcome-states/prototypes) in system behaviour and then work *backwards* in a retrospective manner to uncover the developmental

trajectories that led to those settled states. Thus, instead of the usual forward-pointing ‘pre-diction’ we pursue ‘retro-diction’ by tracking back to the reasons why the system might have ended up with a particular outcome, thus producing a retrospective qualitative model of its evolution.

In an attempt to operationalise the concept of RQM for classroom investigations, Dörnyei (2014) has proposed a three-step research template. The first step involves the identification of salient student types in the classroom, which are equated with attractor states in the system’s overall phase space. There are several possible ways to identify such prototypes, including the statistical procedures of cluster analysis (cf. Byrne & Callaghan, 2014, p. 160) and Q methodology (cf. Irie & Ryan, in press). In this study, a qualitative approach that employed teacher focus groups was followed. I asked the participants to brainstorm salient student types and create a rich description of each archetype with a list of characteristics that would contain cognitive, emotional and motivational components (e.g. motivated + low-proficiency + unconfident). In doing so, teachers engaged with *social categorisation* processes. In social psychology ‘social categorisation’ is understood as the creation of social categories by ‘putting some people into one group based on certain characteristics and others into another group based on their different characteristics’ (Aronson, Wilson, & Akert, 2013, p. 379). The process is highly useful – one could argue, indispensable – when educators have to interact with numerous language learners in large classes on a regular basis, because such categorical thinking can simplify the person perception process (Allport, 1954). Thus, instead of viewing individuals in terms of their unique attributes and characteristics, teachers can construe them in categories according to the information stored in long-term memory

(Macrae & Bodenhausen, 2000), helping them therefore to make sense of the demanding and complex environment of educational settings.

Once a set of relevant prototypes has been established, we need to choose actual students who would fit each archetype, a process that is usually referred to as *critical case sampling* (Dörnyei, 2007). If the identification of the prototypes involves an initial quantitative survey with data then processed by, for example, cluster analysis, it is possible to select students from the statistically distinct groupings (provided of course the questionnaires contained identification data). This approach was adopted for example by Henry (2011) in investigating third language acquisition in Sweden, with a special emphasis on analysing the interference of the L2 (English). In the current study, I followed an alternative process whereby the students' teachers were asked to nominate candidates for each prototype (an issue I will return to in the final discussion). Following this initial nomination process, in a second phase selected students are invited to take part in a semi-structured interview – or a set of interviews – to obtain a rich description of the prototypical cases. Finally, in the third phase, the transcribed interviews are subjected to qualitative data analysis in order to identify the significant components of the classroom's motivational setup and to shed light on the main underlying dynamic patterns – or the system's *signature dynamics* – that produced the observed system outcomes. The current study draws on this three-stage template to examine how RQM methodology works in actual practice and to provide insights into the analytical process that underlies the model's key element: the identification of a motivational system's signature dynamics.

6.3 Methodology

6.3.1 Participants

The research took place in a Hong Kong secondary school. In the first stage of the study – the identification of learner archetypes – the participants were six English teachers (1 male and 5 females). In the second stage – identifying the components and signature dynamics of motivational systems for individual students fitting these archetypes – the participants were seven Chinese students (5 boys and 2 girls). All of the students were born and brought up in Hong Kong, and all native speakers of Cantonese. At the time of the study the students were enrolled in Years 7 to 9 and between 13 and 14 years old. The school they attended is an aided secondary school⁵ where the use of English is greatly encouraged in various ways, including using English in morning assemblies and announcements, organising English drama workshops, international exchange days and immersion programmes abroad. There were two strands in the English instruction – the ‘elite’ and the ‘normal’ stream – and students could move between strands, up as well as down, depending on their progress.

6.3.2 Data collection

After obtaining necessary consent to conduct the research, in the first phase of the study a number of English teachers were invited to take part in a focus group interview. The teachers were informed of the procedures and that their identities

⁵ This was a Band 1 EMI (English as a medium of instruction) school and ones in the first banding (out of three bandings) have the best in-take of students.

would not be revealed in subsequent reporting of the research. Six teachers agreed to participate in the focus group interview, which was held in March 2011. Here they identified seven salient learner archetypes amongst the students in the school (Years 7 to 9). Having done this, they then nominated typical students for each archetype.

Drawing on this list of names, students from Years 7 and 9 were invited to take part in semi-structured interviews (as these cohorts were not under the immediate pressure of public exams). Each student was interviewed on two occasions, the initial, longer interview being followed by a shorter interview where, drawing on brief analyses of the data, the aim was to verify whether the findings were in agreement with the participants' experiences and viewpoints (Hesse-Biber & Leavy, 2011). Interview questions concerning the interviewees' experience of learning English at school, their changing attitudes and motivation, their L2 learning habits, the influences of their family and their imaginary view of the English speaker/user they would like to become were asked (see Appendix A for details). The interviews, which were conducted in Cantonese by myself (designated 'LC' in the excerpts below) took place in a quiet meeting room and lasted for between 30-90 minutes. The digital audio-recordings were transcribed and subsequently translated into English by myself.

6.3.3 Data Analysis

To ensure the accuracy of transcription, the interview corpus (of approximately 145,000 words) was listened to twice. The translated transcripts were then read several times by the authors as a means of gaining familiarity with the data (Harding, 2013). Analysis of the data was carried out in two stages. In the *first stage*, I read the transcripts making brief notes, identifying keywords, highlighting important points

and through these processes, generating ideas. Having obtained a general idea of the data, I carried out a thematic coding analysis to examine the various factors that affected each participant's L2 motivation in different phases of their academic lives, including environmental, social and personal factors. Relevant parts were highlighted and coded into different categories, and then the interaction between the categories was further examined. I have also looked at the commonalities and differences across participants (Gibson & Brown, 2009) to identify overarching patterns and possible links between learner types.

The current chapter focuses on the *second stage* of the data analysis that involved a close-grained examination of the cases with the aim of identifying the corresponding signature dynamics. This analysis was carried out using an interpretive approach similar to that outlined by Smith and Eatough (2007) (see also Henry, in press). In analysing the transcript of the participants, the abstractions of self-determination theory (Noels, Pelletier, Clément, & Vallerand, 2000) and complex systems theories (Larsen-Freeman & Cameron, 2008) were used as a compass, transforming the initial notes into theoretically resonant themes, in particular identifying instances indicating shifts from one attractor state to another, perturbations triggering these shifts and features of emergence.

6.4 Results

6.4.1 Phase one: Identifying learner archetypes

At the beginning of the teacher focus group, I introduced the aims of the study, its method and the schedule of the session to the teacher participants. In order to facilitate the identification of learner archetypes, a list of adjectives in English (both positive and negative) was presented as a set of illustrative descriptors designed to

reflect learners' emotions, cognition, motivation and behaviour. A specific example of a possible learner archetype was also provided and the participants were encouraged to think of typical student representative of this type. After the introduction, the teachers were first asked in pairs, and then as part of the whole group, to brainstorm and come up with other possible archetypes. The descriptions of the seven learner archetypes generated by the teacher focus group are as follows:

1. *A highly competitive and motivated student, with some negative emotions.*

According to the teachers' focus group, students in this archetype are intelligent, motivated individuals with a noticeable competitive edge. They tend to have high expectations of their teachers and expect to be given new and challenging activities and materials in class. They reflect on things to a great degree and tend to be somewhat nervous.

2. *An unmotivated student with lower-than-average English proficiency.* This archetype is unique in a way because, although these students are placed in an elite English class, their proficiency in English is not comparable to their peers and they tend to be lower achievers in general. They are described as quiet, sombre and lacking confidence. In comparison to their elite class peers, they are perceived to be 'lazy', 'not hardworking', and that their schoolwork tends to be rather 'slapdash'.

3. *A happy-go-lucky student with low English proficiency (usually found in the Year 7 remedial classes).* The teachers' focus group described this archetype as represented by someone who is highly motivated in general and enjoys going to school, but someone who at the same time struggles with English and keeps having to ask questions in order to understand what is going on in the class.

Although their grades are relatively poor, their emotional stability and happy-go-

lucky disposition allow them to move beyond their failures. As a result, setbacks in their schoolwork do not seem to frustrate them.

4. *A mediocre student with little L2 motivation.* According to the teacher informants, this is a very common archetype. Despite having the abilities to achieve, students belonging to this category will often only do the minimum required of them due to a lack of motivation. In English classes they are receptive, well-behaved and can function well without any problems. They nearly always pass their tests. Nonetheless, they are perceived as not taking their learning particularly seriously and not possessing clear expectations for themselves. They are stable in their emotions, tending to be calm and placid.
5. *A motivated yet distressed student with low English proficiency.* This archetype was described as being largely represented by quiet female students who tend to be hardworking, diligent and motivated. Students in this group tend to complete the tasks teachers ask them to do, submit all their homework on time and take comprehensive notes in class. However, they are also slow and rather rigid in their learning. What few learning strategies they have (e.g. their methods of revising for tests) tend to be ineffective. Consequently, these learners are unhappy with their work in that it fails to produce any enduring results. It is not uncommon for students in this archetype to be brought to tears when receiving a test paper and realising that the considerable effort they have invested in their studies has not borne fruit.
6. *A 'perfect' English learner.* Teachers saw this archetype – usually found in the elite classes of the school – as the L2 student who is intelligent, independent and focused. Such learners have a great sense of responsibility and are willing to carry out the tasks assigned to them; they are the type of students who, the

teachers say, will readily give them a set of notes when the teacher has misplaced his or hers. They are confident, highly motivated, emotionally stable, have a genuine interest in the subject and engage eagerly in autonomous learning (e.g. they keep a vocabulary log, write grammar notes and keep a journal in English).

7. *An unmotivated student with poor English proficiency.* This student type is very similar to the second of the archetypes in several respects, including being reserved, withdrawn, lazy and lacking motivation. Students belonging to this category are also said to be unhappy and lack confidence in their abilities. Teachers see them as difficult and their work as substandard. What makes them different from the second archetype is that they have lower-than-average language learning abilities even in a regular (i.e. non-elite) class.

6.4.2 Phase two: Identifying students for each archetype

Having identified the learner archetypes, teachers were given a list of the names of students in the English classes they were teaching at the time of the study and invited to nominate students (a) who best represented each archetype, and (b) others who resembled the prototypical learner (to act as reserves in cases where the best candidate might not be willing to participate in the interviews). During this phase, the teachers discussed the possible candidates amongst themselves and reviewed the suitability of their selections. Between two and nine learners were selected for each prototype, with one or two identified as the most prototypical learners. Table 6.1 provides descriptive information on the final student sample comprising three prototypical (Chris, Alex and Rex) and four prototype-resembling learners (Helen, Mary, Saki and Danny).

Table 6.1 Emerging learner types in a teachers' focus group discussion

Prototype (Pseudonym)	Motivation	Cognition	Emotion	Behaviour	Quotes
A highly competitive and motivated student, with some negative emotions (Chris)	motivated	high ability in English, has a lot of expectations of teachers and of themselves	anxious, not cheerful, negative in their way of thinking	loves comparing self with others, likes competition	‘I really wanted to be the best. I was combative and I had a desire to compete and win.’
An unmotivated student with lower-than-average English proficiency (Helen)	not hardworking, not particularly motivated	low in ability especially when compared with students in a good class	reserved, not happy, not confident in English or any other subjects, proud to be in an elite class, inferiority complex	insufficient engagement, careless with her homework	‘When I have to concentrate on something that is relatively boring, I will become stiff. I really need to relax my brain at that moment.’
A happy-go-lucky student with low English proficiency (Alex)	motivated generally & also in English	less able, low proficiency	cheerful	asks many questions, inflexible, active, needs clear guidelines	‘The worst fear is not having any friends. Sometimes, when I am revising and this comes to my mind, I’m quite scared.’
A mediocre student without much L2 motivation (Rex)	learn only when pushed, does not do his homework seriously	mediocre in achievement	neutral in emotions, gentle, lucid	obedient, attention-seeking, would try to make some jokes in class, funny	‘To put it bluntly, I do my work superficially. I only work hard in front of others, but I won’t when they are not there.’
A motivated yet distressed student with low English proficiency (Mary)	hardworking, motivated, will learn autonomously	a weak learner	empathetic, sad after receiving a test paper	quiet, obedient, rigid, responsible, fossilised in their learning strategies,	‘In the last test, I cried. It was also because I was scared to be told off by my parents.’
A ‘perfect’ English learner (Saki)	has intrinsic interests in learning English, serious approach to learning	good memory, has acquired various learning strategies	emotionally stable, confident	detail-minded, organised, independent in everything, capable of handling most tasks, helpful, well-behaved	‘I would learn five new words and I read English every day. I would always have something with me to read.’
An unmotivated student with poor English proficiency (Danny)	not hardworking, not particularly motivated, withdrawn	low in ability even in a regular class	reserved, not happy, not confident in English or any other subjects, proud to be in an elite class, inferiority complex	insufficient engagement, careless with his homework	‘I didn’t want to do my homework, but I had no choice.’

6.4.3 Phase three: Mapping motivational trajectories and identifying signature dynamics

The final phase of RQM aims to produce two related outcomes: a set of signature dynamics associated with the initially identified archetypes and, based on this set, a dynamic overview of the learning environment under investigation. The second objective goes beyond the scope of this chapter and therefore the focus below will be on the first aim, generating a retrospective account of the system dynamics of the seven students. This begins by offering a *thumbnail portrait* and the family background of each learner. I then describe each student's *motivational trajectory* from he/she first encounters with English, moving on to finally identifying the *signature dynamics* of each person's motivational system.

6.4.3.1 A highly competitive and motivated student, with some negative emotions (Chris)

Chris's thumbnail portrait

Chris, who was aged fourteen at the time of the interviews, lives with his grandparents in an urban residential area with mainly public housing estates in the part of Hong Kong known as the New Territories. His parents and younger brother live in Tung Chung, a town on one of Hong Kong's islands. Perhaps because of the pressure of raising two children, his parents decided that Chris should be brought up by his grandparents. Although Chris does not mention any contact with his parents, he has, in addition to his grandparents, a close relationship with an uncle, who, along with his grandmother, has been instrumental in his education and development.

While his grandmother '*has been telling me off since I was young*', his uncle offers

more constructive advice, functioning as an important role model. In particular his uncle has advised Chris to read as many books in English as he can. Similar advice has been received by another important adult in Chris' life, his personal tutor, whom he has had since Year 3. Like his uncle, she advocates the importance of reading: *'Her advice is to read widely. She says the reason why English proficiency is so low among students is because they don't read extensively. They only care about what is required from the school'*. Like many boys of his age the world over, Chris enjoys playing digital games, sometimes at the expense of other activities, such as reading books and doing homework. Sometimes, he says, *'I just want to read everything quickly so that I can play computer games. There's a sense of addiction'*. He is musical, playing both the piano and the guitar, from which he gets particular pleasure, saying that *'when you have loads of homework to do, if you can play the guitar, you will feel less pressurised'*. From a young age he has been attending private English classes run by the British Council.

Chris' motivational trajectory

From the interview data, five extracts that illustrate not just the motivational trajectory over time, but also the interactions between different system components are presented. Chris suggests that, as the years have gone by, his motivation has increased continuously:

[Extract 1]

In primary school, I felt bored when I had to read long passages. But because I have built a strong foundation, I naturally didn't think it was that difficult in

secondary school. I feel increasingly more interested and my motivation keeps growing.

Chris' first encounters with English were, he recalls, not particularly positive. Reading in class was not something he enjoyed, '*my concentration was not so good, so when I had to read a long passage, I felt really tired*', he says. At home his grandparents' attempts to expose him to English – '*I remember that my family forced me to watch some foreign cooking programmes*' – were not met with enthusiasm. Despite the lack of appeal of TV cookery shows and the boredom he experienced in primary school, Chris nevertheless describes to the interviewer (LC) that this point in his life was the start of an interest for English. It is also back in primary school where he believes his '*strong foundation*' developed. Contrasting his learning in and outside of school in these early days, Chris reflects on the fact that he felt much more motivation in the classroom. This, he explains, was because it was here that he had an opportunity to compete:

[Extract 2]

Chris: I was OK in class, but my learning motivation was extremely low at home.

LC: Extremely low.

Chris: It was a lot higher at school. ... There were competitions with classmates. Because there were competitions, there was no reason why I should just sit and do nothing, so I became more attentive.

This competitive streak, Chris remembers, blossomed in Year 3 when the teacher began to give regular quizzes. Not only would Chris and his classmates compete to get the best marks, there was also competition to see which of them could complete the tests in the shortest time. This self/peer-generated competition, Chris says, was very enjoyable, far more so than the less intense but more boring lessons in Years 1 and 2:

[Extract 3]

Chris: Then, we would try to finish the questions as quickly as possible.

LC: You had to compete against time? This started from Year 1?

Chris: No, from Year 3.

LC: What do you think about this?

Chris: It was really fun! You could practise the speed of your writing.

LC: Did you have to do this on the blackboard?

Chris: No, you had a notebook and you wrote ... continuously. Working on it continuously. But in Years 1 and 2, it was a lot more relaxed.

As Chris explains, his level of motivation continued on its upward trajectory during Years 4, 5 and 6. Although in Years 3 and 4 he enjoyed the competitive environment of the classroom, invariably earning top marks on the tests, his real interest lay in computer gaming. Consequently he did not devote too much time to his studies. Even though he did not have a lot of homework at this time – meaning that there was more time for gaming – English homework was still an unenjoyable chore. A turning point however came when he was in Year 4/5. Normally at the top of the class rankings in English, Chris's perception of himself as the class's star

performer received a blow when on an exam several of his peers gained better marks:

[Extract 4]

Chris: I remember that I failed my exam once in Year 4 or 5.

LC: How did that affect you?

Chris: It wasn't that bad actually. I was previously ranked either first, first runner-up or second runner-up in Years 4 and 5. It was like.... in one exam, if I can remember...I fell behind and was ranked sixth or seventh. ... So I started reflecting whether I was on the right track with regard to the way I studied.

LC: I see. How did you feel?

Chris: When I got my exam report, I remember crying for a little while.

LC: Oh! You were feeling unhappy, right?

Chris: Yes. Then, I started regretting why I had played computer games before; why wasn't I hardworking and so on...

LC: I see. How did this reflection affect you?

Chris: In Years 5 to 6, I remember that I started to become really hard-working. I paid attention in every single lesson.

A sobering experience, Chris goes on to explain how, pretty much from this time onwards, he has focused much more on learning English. As he explains, the disappointing exam result impacted not just on his approaches in class, but across a range of learning behaviours. He tells how he began to self-monitor his learning, to

focus much more on what was going on in the classroom, reading much more out of class and, as a consequence, developing greater self-confidence.

Continuing in this new found study mode, Chris talks about how his motivation increased again when, in Year 7, he transferred to a new English-medium secondary school:

[Extract 5]

LC: This is an English school. Were there any big changes when you started studying in a secondary school?

Chris: When I was in Year 6, I didn't know whether I would be able to adapt in secondary school. But when I came here, and then I realised that it wasn't so hard to adapt. And I didn't really have the desire to compete in Year 7. ... And my family said, "Now that you are in secondary school, if you can be ranked under the twentieth, you are doing really well." So, I was taking it easy and not trying my best. I didn't really have to fight to be number one. So, I was taking it easy and was relaxed. I didn't have much pressure.

LC: You didn't have much pressure. Would you say that you weren't really paying a lot of attention? Really taking it easy?

Chris: I was really taking it easy, but since... but since I came first in a few of the subjects, I started to be scared.

LC: That was Year 8 at that time?

Chris: Year 7...

LC: How many subjects did you come first? When did that start?

Chris: Since the first term.

LC: Since the first term, you were ranked first in some of the subjects?

Chris: So...

LC: Is this the ranking of the whole year?

Chris: My year. So, I started to be scared at that point. I hadn't imagined that I would get such high marks.

LC: Really? Right. I want to ask you... when you got good grades, how did you feel?

Chris: I haven't thought about it.

LC: Were you surprised? Would that be it?

Chris: I couldn't believe that when I started studying in secondary school, everyone was a Band One student, and I could still get the highest mark. That was really incredible. Since then, I was studying seriously.

Levelling off at a high level for the remainder of Year 8, Chris says that recently – now in Year 9 – his motivation suffered again, momentarily at least, when he did not come top of the class on an exam and how, as before, it caused him to reflect on his approach to learning and the effectiveness of the different strategies he employs.

System components and signature dynamics

Having traced the nature and intensity of Chris' motivation, let us now focus on the system's dynamics. The essence of the RQM approach involves uncovering the critical underlying mechanisms associated with typical system outcomes, that is to say, the system's signature dynamics (Dörnyei, 2014). Shedding light on the

dynamics of Chris' motivational system, the account begins with an examination of initial conditions.

Initial conditions

Simply put, initial conditions are the state that the system is in at the time the investigation begins (MacIntyre & Gregersen, 2013; Verspoor, in press). In this case, it means identifying the attractor state the motivational system occupies at the time Chris started English in Year 1. As can be seen in Extract 1, Chris does not recall his early encounters with English as being particularly enjoyable. Dutifully ploughing through long passages in class and being forced to watch cookery programs at home, he describes feeling '*really bored at that time*'. Extrinsically motivated, Chris' approach to learning is characteristic of forms of introjected regulation where, even though the pressure to put in effort is internally generated, it takes the form of a need to live up to external evaluative standards (Noels et al., 2000). For Chris the imperative is to do that which his family (grandparents, uncle and teachers) expect of him.

As Verspoor (in press) makes clear, the impact of initial conditions on the system's future development will be dependent on whether or not it is in an attractor state. If, at a given starting point, the system is lodged in a deep-sided attractor basin, initial conditions can have an enduring impact on subsequent development. In Chris' case, at the start of school his motivation to learn English (and, it is suspected, other subjects too) is strongly rooted in the desire to maintain self-esteem by conforming to socially-derived normative standards. Indeed, one of the most striking things to emerge from the interviews is that, other than providing a route into higher education and prestigious employment (Chris has various notions of becoming a university

professor or a writer), he gives no expression to ideas about speaking English in social situations in the future. Nor do we find any examples of intrinsic motivation of the type where the individual engages in an activity for the pleasure and satisfaction of understanding something new, satisfying their curiosity or exploring the world (Vallerand, 1997). While the journey of the motivational system across the state space is one of fluctuations, the initial conditions continue to have a strongly determining effect, the system tending regularly to gravitate back to the powerful attractor state of living up to externally-imposed, internally-accommodated evaluative standards.

An essential underlying mechanism: The periodic movement between different attractor states

Even though, as can be seen, Chris' motivation changes across the period, with sometimes changes in motivated behaviour being quite marked, a pattern seems to emerge where the system moves between a particular group of attractor states.

(a) Movement to a new attractor state: The introduction of quizzes in Year 3.

A change in Chris' motivation is evident in Year 3 (Extract 3). From this point onwards, rather than a duty, learning becomes fun. However it is not the learning activities in class that appear as more engaging or personally meaningful. Nor does Chris mention the teacher's approach as having any particular impact on his motivation. Rather, it is the introduction of assessment in the form of in-class quizzes and the competitive environment to which they give rise which together have a perturbing effect, pushing the system into another part of the state space.

The paradox of testing bringing about increased pressure and fun at the same time can be linked to what German psychologist Karen Horney (1937, pp. 188-9) has

termed *hypercompetitiveness* (or neurotic competitiveness). As Horney explains, a hypercompetitive individual ‘measures himself against others, even in situations which do not call for it’. Not only do these individuals want to accomplish more than others, they also desire to be exceptional and attempt to achieve these ends even when this might involve harm to others or to themselves. Although Chris is not competitive to the extent of being neurotic, his disposition is not unlike what has been termed *academic hypercompetitiveness* (cf. Bing, 1999). He engages with English because of the excitement generated by the challenge of a test, and the satisfaction and sense of accomplishment in surpassing his peers, both in terms of accuracy and response speed. From this time onwards the system periodically shifts into and out of this attractor state, a part of the state space embodying two of the fundamental characteristics of intrinsic motivation, namely achievement (engaging in an activity for the satisfaction of accomplishment) and stimulation (engaging in an activity to experience pleasant sensations) (Vallerand, 1997).

However it is important to note that even though the emergent behaviour following on from the phase shift triggered by the introduction of quizzes has an enduring quality, competitiveness being the hallmark of Chris’ motivation, this does not mean that the desire to live up to family/social expectations – the system’s initial condition – is overridden. Rather, as observed in the interviews, the stimulus of competition and the desire to maintain self-esteem by conforming to family/social expectations, function as twin cyclical attractors between which the system moves. As Larsen-Freeman and Cameron (2008) and Hiver (in press) point out, in some cases systems will periodically move between a number of different attractor states. Known variously as *periodic*, *cyclical*, *closed loop* or *limit-cycle* attractors, these states represent areas in the state space between which the system regularly oscillates

in a periodic loop. Consequently, as Hiver (in press) explains, ‘patterns emerge when events or behaviours repeat themselves at regular intervals’.

(b) *The emergence of a new cyclical attractor: The fear of failure.* Although throughout the period the system oscillates between the twin attractor states of *stimulation* (deriving from competition) and *self-esteem maintenance* (the need to live up to family and social expectations), at various points other phase-shift triggering perturbations take place creating new patterns of movement across the state space.

Chris identifies two particular events as having an impact on motivated behaviour prominently linked to reactions to failure. At a point in time in Year 4 or 5 (he can’t remember exactly when) he recalls the experience of ‘failing’ an exam (Extract 4). The other experience was, when switching school to the English-medium secondary school in which he is now enrolled, he realises that success – coming top of his year in this larger, more challenging environment – can be a double-edged sword in that it generates new and more demanding expectations to live up to (Extract 5). In both cases these experiences function as perturbations that jolt the system into another part of the state space. Downstream from these perturbing events new behaviours – the self-monitoring of learning, reductions in the amount of time spent playing computer games, reading more widely and focusing more in class – begin to emerge.

While these new forms of motivated behaviour indicate that a phase shift has taken place, the attractor states to which the system gravitates do not represent radically different areas of the state space. Indeed, the attractors themselves bear a close resemblance to those already identified. Moreover, as the interviews reveal, the shift to these attractor states is not permanent and at various times the system reverts

back to the attractor states previously occupied. This is particularly evident when Chris talks about how his uncle became more important in his life in the period during Years 8 and 9, and how he has tried to model his approach on his uncle's advice; in these instances the system appears to revert back to the self-esteem maintenance attractor.

Signature dynamics

To sum up, the signature dynamics observed can be seen as the movement of the system between three cyclic attractors; *self-esteem maintenance* (the need to live up to family and social expectations by being a good student), *stimulation* (deriving from processes of competition) and *fear of failure* (not achieving at a level both he and others have come to expect). The movement between these cyclic attractors seems to take the form of a closed loop of periodic movement (Larsen-Freeman & Cameron, 2008) between states that represent two of most fundamental forces in motivation, namely approach and avoidance drives. As MacIntyre and Serroul (in press) explain, desires to approach situations that trigger positive emotions and to avoid those that generate negative affect are basic human tendencies; these tendencies underpin the system dynamics that have been identified here.

6.4.3.2 A problematic, unmotivated student with average/low English proficiency (Helen)

Helen's thumbnail portrait

Helen, a bubbly, lively and animated fourteen-year-old girl, lives with her working parents and has a younger brother. The presence and influence of her mother is eminent which is shown through the interview transcripts, in which Helen often

mentions interactions and conversations between her and her mother. She is eloquent and expressive, someone who is willing to discuss matters regarding her inner thoughts, someone who is easily amused.

Helen is highly intelligent with excellent memory as she recalls what her mother said: *‘My mum always says that I am intelligent. She said that even when I was really young, I could remember the phone numbers even when they were only mentioned once.’* It is hard for her to keep out of mischief as she played practical jokes in primary school, including putting a water-stopper in a washroom sink so that water runs till the room was flooded.

Helen is a fun-loving, creative teenager, who also has a keen desire to learn about the world. Her hobbies include reading fictions, literature and science-related books as she says, *‘It’s interesting! It’s really interesting! You have to know that there are a lot of interesting things in the world that are in English!’* However, at the same time, she feels that *‘the pressure from life is huge’* and as a result, she relieves the pressure of her studies by procrastinating and avoiding to do her homework, by revising for tests and dictations at the last minute, and by reading fictions secretly in class when she feels that the materials are not sufficiently challenging. This can be epitomised in her comment: *‘They pressurise me. I tend to laze around.’*

Helen’s motivational trajectory

Overall, the motivational trajectory over the years remains relatively low during Helen’s primary school years because she *‘was not conscious of the fact that [she] had to learn’*. However, her motivation started increasing as she entered secondary school as she *‘realised how important English learning is’*.

In primary school, Helen's situation in English learning was characterised by her hatred in English and a general lack of motivation. Indeed, Helen did not find English learning stimulating or significant due to the relatively simple curriculum used at the school, as she recalls: '*I wasn't aware what or how I should learn.*' And yet, from a very young age, she was constantly told by her mother the need to be at the top and to be better than others in order survive in the society. So although Helen ranked top of her class, she was forced to exert extra effort into English learning. Helen recalls of having to do supplementary exercises in English every day in Years 4 and 5. It involved reading a certain number of passages and learning new vocabulary, which became an agony for her. The following extract illustrates the pressure Helen received from her family:

[Extract 6]

Helen: The pressure from life is huge. For example, your family always tells you that you have to study hard and go to university, if not you won't be able to compete against the others.

LC: How does that affect you?

Helen: For example, in terms of time management, you need to have a tight schedule. You really must have good time management. If you are slightly slow, then you can't follow your schedule.

LC: I see. Your schedule. Do you feel great pressure? Do you have anything else to say about this?

Helen: As a student, that's about it. But the main thing is that you are forced to go to university.

LC: What other expectations does your family have on you?

Helen: They spend money for me to learn violin and they said that I have to increase my competitiveness.

LC: To increase your competitiveness. What's so important about being competitive?

Helen: They allow me to learn the violin, so even if my studies are not very good, but if I am good at playing the violin, I can then become a violin teacher in the future.

LC: I see. What do you think about your family's expectations?

Helen: I can understand it because I have to think about my own future as well.

During the transition into secondary school, Helen shows an apparent conflict between her fun-loving nature and her resistance to the external pressure exerted by her family and by the school. On the one hand, her motivation to learn English was gradually increasing, which was partly due to her intrinsic love of reading '*really interesting*' English books with '*appealing*' titles, and was partly due to a lack of understanding in some of the contents (because of the difficult vocabulary) that led Helen to '*really [wanted] to learn more English*'. Indeed, her behaviours were mainly motivated by a desire to '*know more interesting things*' as she comments:

[Extract 7]

I am a person who chases after interests and don't have a huge sense of responsibility. In fact, my learning of English does not bear out of responsibility.

On the other hand, Her love for reading and fun also dominated her learning behaviour as she explained the ‘rationale’ behind her in class and out-of-class learning behaviour, as she instinctively resisted the relatively boring work that is required of her, as illustrated in the following extract:

[*Extract 8*]

Helen: Because I realised that if you listen to something extremely boring, something you had already learnt ages ago, even if you don’t read fictions, you will still fall asleep.

LC: I see! So, if you are in a boring lesson, even if you don’t read, you’ll fall asleep. Does that mean that you literally fall asleep?

Helen: No, I just won’t be focused.

LC: Won’t be focused.

Helen: How should I put it? I’ll be daydreaming.

So although her love for English was growing continuously, her motivation to learn for tests and to learn in class only persisted for merely a semester. Her learning approach again started to shift in the beginning of a new semester as she noticed a change in her learning atmosphere:

[*Extract 9*]

Later on, I asked my classmates, ‘Haven’t you finished revising? Why are you revising during recess?’ And they said with contempt, ‘Well, we didn’t revise yesterday!’ And for their homework, they also copied answers from each other. And there were also classmates who did not bother revising.

As Helen observed the poor learning behaviours, they affected her adversely as she assumed that hard work was unnecessary. This got to the point that she merely wanted to obtain a bare pass in tests and exams: *‘Everyone is the same and I am not the worst one!’*

The situation improved in Year 8 as Helen was placed in an elite class where peers around her were stronger in their academic abilities. As Helen’s L2 motivation started to increase, she did not read fictions secretly but paid more attention in class. At the same time, her fear of English that was developed in primary school gradually subsided, and apprehension and avoidance that used to dominate her thoughts in the use of English gave way. As she took the courage to use the language, she surprised herself of her acquired language ability, especially in reading.

Despite the improvement, Helen admits that her old habits resumed as she was placed in a regular class in Year 9, and her greatest desire at this point in time is to relax instead of studying. Her peers, together with a lack of urgency, have a negative influence on her morale, as illustrated by the following extract:

[Extract 10]

Helen: I didn’t do this when I was in primary school, but when I am in
secondary school.... But most of my classmates are the same.

LC: So, you see that lots of others are doing the same.

Helen: Yes, even if they are not revising in the morning, some are even
revising secretly in the first lesson when the dictation will be held in
the third lesson.

LC: Why do you want to revise on the day?

Helen: Because if I revise before, I will feel dizzy and I won't be able to take
anything in.

LC: If you revise before, you'll feel dizzy.

Helen: Yes, but the deadline is tomorrow and it's drawing close. [Laughter]
You won't have a choice.

LC: Because tomorrow is drawing close. So, you have more motivation.
[Laughter]

Helen: That's correct. For my uniform tests and exams, I am the same.
Always revise last minute.

LC: Is that for English?

Helen: Yes.

LC: How about for other subjects?

Helen: I am like this for most subjects.

LC: So, because the deadline is coming, you have more motivation?

Helen: No. So, there's this sense of urgency which is also the motivation and
there is also my own desire to revise, which is I have not got any. I
don't want to revise and it's agonising. When the sense of urgency
surpasses my agony, I will start revising.

Despite Helen's procrastination, there is a continuous conflict when she also
noticed that many of her peers have a very high proficiency as she remarks:

[Extract 11]

Then, when I am in Year 9, I realise that many of the students have a very high English proficiency. When I write a composition, I need to use a lot of vocabulary to express myself, but my vocabulary size is limited. I can't express myself very well, so I really want to learn more. So, my learning motivation increases.

She comments: *'I think there is a bit of anxiety. So when I have to concentrate on something that is relatively boring, I will become stiff. I really need to relax my brain at that moment.'* This is partly related to her own theories about L2 learning as she thought that rote learning for dictations and exams would not lead to long-term deep learning whereas incidental learning would. Helen wants to link her learning to materials that are interesting and fun, and she feels that English can be learnt naturally.

Helen's system components and signature dynamics

Initial conditions

The attractor state in Helen's motivational system was resided in external regulation in Year 1. Not unlike Chris's situation in primary school, Helen's effort and motivation in learning English during this period were largely due to external regulation. These are actions resulting from external sources such as rewards and threats (Madrid, 2002), and in Helen's case mainly derived from her family, especially her mother's expectations (Extract 6). Helen was merely *'going along with her'* and she *'was not conscious of the fact that [she] had to learn'*. The

attractor basin the system lodged in was characterised by the core attractors, including the extrinsic motivation as aforementioned, and her fear and abhorrence of English learning. The system found itself gradually deepening in the attractor basin of low motivation during her primary school years.

An underlying mechanism

(a) Movement to a new attractor state: Igniting the passion for English.

There is a change of motivational trajectory during Helen's secondary school years. In this period, she recognised the importance of English and she ignited a love for reading in English, which turned into a new attractor state. Thoughts and behaviours were dominated by a core attractor in the system —that is, the *desire to engage* (Forbes, 2011). For Helen, being engaged means reading about interesting fictions or learning interesting things about the world (Extract 7). Here we find examples of Helen being motivated to engage in interesting activities, that is 'to do all the activities of my life in a way that feels great – exciting, productive, absorbing' (Forbes, 2011, p. 91). We also find intrinsic motivation, which refers to doing something before it is inherently interesting or enjoyable (Ryan & Deci, 2000).

(b) The emergence of a new cyclical attractor. In Helen's L2 learning history of her secondary school years, there was a constant mismatch between the *external regulations* (i.e. school exams and family expectations as partially illustrated by Extract 6) and her *desire to engage* (Extract 7). This tension created alternating behavioural patterns and the system was oscillating between the attractor state of external expectations and the attractor state featuring Helen's desire to engage (Extract 8). It is only when the pressure exerted from the environment was too large when the system (naturally lodged in the stronger attractor state of the desire to

engage) was temporarily directed to the much shallower and less stable attractor state of external regulations (Extract 10).

The tension between the two attractor states as described above was intensified by social comparison (Festinger, 1954), a phenomenon in which individuals evaluate their abilities by comparing themselves with others. With the mechanism of social comparison, the system is now susceptible to the influences of the thought and learning behaviours of peers. On the one hand, by creating a downward social comparison (Wills, 1981) – that is, comparing with those who were unmotivated and did not bother revising (Extracts 8 & 9), Helen felt that she was not ‘*the worst one*’ which justified her procrastination and her engagement to ‘*learn interesting things*’. From the system’s viewpoint, Helen’s downward social comparison was in sync with the attractor state of desire to engage, which formed a broader attractor basin, stabilising the system in the state space. Having said that, the system was also undergoing perturbations as Helen performed upward social comparison (Suls, Martin, & Wheeler, 2002) as she also saw students with high English proficiency, which increased her learning motivation (Extract 11).

Helen’s signature dynamics

Helen’s motivational dynamics had been determined by two conflicting attractors: her articulate internal desire/beliefs to pursue interesting things and the external academic requirements reinforced by her mother and the exam system. This is epitomised by her comment: ‘If there weren’t any exams, I would be the most hardworking person!’ In order to manage this tension, she developed a metacognitive coping mechanism, which became another powerful attractor, to justify her actions and to relieve the pressure exerted by the environment; she was aware of the need to

‘survive’ and one of her key principles became that she needed to be ranked in the middle of the pack: ‘I am not the worst one!’

6.4.3.3 A happy-go-lucky student with low English proficiency, usually found in Year-7 remedial class (Alex)

Alex’s thumbnail portrait

Being a lean, tall thirteen-year-old, Alex stood out among his Year-7 peers. He is from a humble family; and with his father recently having passed away, he was a client of the school counselling team during the time the interviews took place. He lives with his mother with whom he had some problems and his older sister, who ‘*taught him some strategies*’ to learn English vocabulary.

Alex is chatty and is not afraid to reveal some of the deepest fears or worries he was facing, which included ‘*not having any friends*’. This was his source of great concern that gravely affected many areas of his life. He harboured some negative emotions, was moody at times and was easily irritated by things, such as not understanding what was being taught, receiving poor test scores or even reading passages that were verbose and difficult. There were times when he was so provoked to the extent that he would throw a book onto the ground or even tear it apart. Indeed, Alex demonstrated some unresolved, negative emotions through his demeanour and his tone as he recounts some of his unpleasant life experiences.

In class, although he pays attention when he comes across materials that are interesting to him, he is more often distracted by various factors, including the chattering of classmates or the good weather outside. Because of his height, Alex is always the student sitting at the back of the classroom, which he dislikes at times. Not unlike other children of his year, he enjoys computer games and basketball.

As I was conducting English drama workshops at the school, I had the opportunity to observe Alex and had a glimpse of his classroom behaviour. When I asked students to do different drama activities, Alex was reluctant to take part and was clustering with a few of his friends. Moreover, not following the instructions, he was speaking to his friends in Cantonese. I was acutely aware that the reluctance of his small cohesive group was having a negative effect on the other students.

Alex's motivational trajectory

In the first year of primary school, Alex enjoyed English and obtained good grades in exams as he had a good memory and could remember the things teacher taught him well. He comments:

[*Extract 12*]

Back then, when I was young, I thought I should get 100 marks for every subject. I think that English is about... is about having a certain rank in your year. So, my learning motivation was higher.

Nonetheless, Alex's positive attitudes only lasted a year and it was replaced by a strong abhorrence for English as he exclaims: '*I hated English. I didn't like it,*' which could be originated from his negative attitudes towards English language (e.g. '*English isn't something important*') and his frustration with difficult or challenging tasks (e.g. '*English was hard*'). Everything occurred during the summer holiday in Year 1 when Alex '*fell in love with video games*' to the extent that he even wanted to play truant at school. Alex provides several reasons that accounted for his lack of L2 motivation, which include finding English difficult as the school started using a more

a more advanced textbook; missing some lessons for medical check-ups which caused him to lag behind in class; and having an English teacher who was '*the harsh type*' in Year 3. He started failing English tests. His motivation was at the lowest point in Year 4 because his classmates were all making rubber crumbs from erasers in class and he joined them. He was only listening to the teacher selectively and his desire to listen in class decreased.

[Extract 13]

Alex: Actually my motivation was at the lowest point when I was in Year 4.

LC: Can you say a little bit more?

Alex: When I was in Year 4, it was popular for others to make rubber crumbs from rubber erasers in class. When they make it, because I didn't want to listen, I joined them and made some. Then, as I made them, I didn't have the desire to listen in class. Then my grades started to fall again.

LC: I see. What were you thinking then?

Alex: It was like being addicted to one thing and I didn't have the desire to do anything else.

LC: I see. Did you have any thoughts?

Alex: Not really.

LC: Not really. Just play first. It doesn't matter.

Alex: Right.

The situation rapidly transformed in Year 5 when grades were to be submitted to an external board which would determine which secondary school Alex would go to. With his mother threatening him, saying: *‘If you aren’t admitted into a good school, then you’ll be dead. I’ll leave you outside the flat and I won’t let you in,’* Alex became *‘scared of submitting the grades externally’*. Alex remembers being more diligent: his attention in class began to increase and there were preparations prior to each lesson. During this time, her sister’s help in his school work also played a key role as illustrated in the following extract:

[Extract 14]

Alex: It was the last day of school when they distributed the results, telling you which secondary school you were going to study. Then my mum said, “You really have to thank your sister. Without your sister, you wouldn’t be able to get into this secondary school.” She said that.

LC: How did you feel? What were you thinking?

Alex: I guess she was right.

LC: Your sister really helped you a lot.

When Alex finally entered a good English secondary school, he realised that English is a game of high stakes, as he comments: *‘You must learn English well. If not, you’ll be demoted.’* With his goal was to *‘pass the exams’* and to *‘get a higher mark sometimes’*, Alex feels that he was exerting more effort in English learning at the time of the interview. He was spending at least an hour each day to read more English books and to watch English TV programmes. Nonetheless, Alex was easily distracted, as he admits:

[Extract 15]

I regretted the fact that I hadn't worked harder before. If I had, I would not have got such poor results. I do put in some effort, paying more attention to my study, but after a short while there will be another thing tempting me.

Alex's lack of hard work, coupling with his easily provoked frustration with challenging tasks in English class, further led to more negative emotions:

[Extract 16]

Alex: If the texts are long, I will ignore them. They are difficult.

LC: What do you mean by ignoring them?

Alex: That means when the texts are too long and the words are too difficult, I will put them aside.

LC: So when they are difficult, how do you feel?

Alex: Angry.

LC: Angry? How will that affect you?

Alex: I get so angry that I will throw the book onto the ground.

LC: Does this happen at home?

Alex: Both at school and at home.

LC: Wow!

Alex: There was this one time when I tore the book apart.

LC: You were really mad.

Alex: Right.

LC: Because you felt that it was really difficult, right?

Alex: Yes.

More importantly, there was also a much stronger influence that was impacting Alex, which was a deep-seated fear of '*not having any friends*', '*being unhappy*', '*being laughed at*' and '*being told off by people*' which is highlighted in the following extract:

[Extract 17]

Alex: That is I am really scared of being unhappy.

LC: What will make you unhappy?

Alex: I'm scared of being laughed at.

LC: Scared of being laughed at.

Alex: And also scared of being told off by people.

LC: Who are these people?

Alex: Teacher will tell you off and mum will nag you, and people will laugh at you.

LC: These people are your classmates?

Alex: But the problem is that while they were laughing at you, their grades were worse than mine.

LC: Oh. That means although they were laughing at you, their grades were quite bad?

Alex: Yes.

LC: But their grades were quite bad.

Alex: Yes.

LC: So you were scared to be unhappy.

Alex: Yes. The worst fear is not having any friends.

LC: Scared of not having any friends.

Alex: Because there's already one person in my class who doesn't have any friends, he is being ostracised.

LC: Really?

Alex: I am scared that my fate will become like his.

Because of a vigorous desire to feel secure, esteemed and connected with his friends, Alex '*got distracted easily*' by his peers, both in and outside class, especially when it is concerning computer games and basketball. Among different groups of people, it was his friends who influenced him most: '*Because people influence me. They always talk about different computer games and ask me to play.... And then recently, people ask me to play basketball during recesses and lunchtimes. And then, I go down to play basketball and it's like... I don't really want to have lessons.*'

Nonetheless, there were more factors, such as the fear of not securing a good job and being treated with contempt, which, at times, influenced his classroom behaviour, as depicted by the following extract:

[Extract 18]

LC: What are the factors that motivate you to learn English?

Alex: It's just about the future, to find a better job in the future.

LC: Maybe you have already talked about this... what are the factors that motivate you?

Alex: It just means that you won't find jobs like sweeping the streets or cleaning. Those are horrible jobs for me!

LC: Can you say a bit more?

Alex: That means when I find a good job in the future, if my parents are still alive, I can support them. I can be pious.

LC: I see. You want to be pious to them. And you said something about the horrible jobs. What are your thoughts?

Alex: I feel that this is an abject kind of job, one that others will look down on. They are actually just looking for three meals a day, but others treat them like trash. I think they are really poor. So, I think I must study well and find a better job in the future. If possible, from my salary, I will spare some money from my salary to help those in need.

LC: That's a really nice thought. Having this motivation, meaning that you want to have a better job and not wanting to sweep the streets, how does this thought affect you? Do you always think about this? Or are you saying this because I have asked you this question?

Alex: Sometimes. Sometimes when I have a lesson and I think about this, I will pay more attention.

LC: I see.

Alex: Then I won't be affected by the others.

Alex's system components and signature dynamics

Initial condition

Although the initial condition of Alex's L2 motivation was relatively high, it was mainly driven by purely extrinsic motivation of obtaining high scores and ranks

(Extract 12) at Year 1.

An essential underlying mechanism: absence of any serious striving for achievement and the aversion to effort

(a) Movement to a new and growing attractor state: desire to engage and the absence of any serious striving for achievement. The system's external motivation evident in Year 1 moved into a new attractor state of *indulging in hedonism/pleasure*, which 'centers around the utilitarian motive to gain pleasure and happiness for the self' (Bentham, 1779/1948; cited in Fisk, 2008, p. 4). This was initiated from a love of video games to the point of addiction, which led to an aversion to effort (Extract 13). He seems to be finding reasons for not exerting any effort into English learning. When asked whether he had any thoughts regarding his lack of motivation during this period, his response was: '*Just play first. It doesn't matter*' and '*it doesn't matter whether you learn English. Just forget it!*' So despite there being a sense of fear of being scolded by his mother due to bad grades, it caused no perturbations in the system. The attractor basin grew in width incorporating more system attractors and also in depth as the lack of motivation grew in stability.

(b) *The emergence of a temporary attractor: External pressure of examinations.* Not unlike many students whose motivation hiked in the face of external examination, the reality of having to submit grades to an external body in Year 5 and selecting potential secondary schools appeared to have an impact, acting as strong attractors. Apart from the forthcoming submission of grades, there were several other system components in the attractor basin that were conducive to the stability of motivation, including the help from his sister with his studies (Extract 14) as well as the threats of his mother that he would not be allowed to enter the flat.

(c) Cyclical attractor: *The need to belong*. During this phase, the system was more often lodged in the attractor state of the need to belong, which is a fundamental human motivation (Baumeister & Leary, 1995; Horney, 1951), a desire that takes precedence over esteem and self-actualisation (Maslow, 1968). Yet, as the attractor state of the need to belong deepened in depth, the system changes trajectory: the core attractor was no longer a fear of lack of friends, but transformed into a sense of addiction in his indulgence in computer games and basketball, which caused Alex to become increasingly distracted from his studies.

Alex's signature dynamics

The system moved into a cyclical attractor that oscillates between several attractor states of *self-esteem maintenance* (the fear of being looked down upon by others; Extract 18) and the *need to belong* (Extract 17) and the attractor state of *indulging in hedonism/pleasure*. So although the system did at times lodge in the attractor state of self-esteem maintenance, which allowed Alex to stay focused on his studies in class and his revision at home, the attractor state was relatively shallow and less stable (Extract 15). Rather, it was more strongly anchored in the attractor state of *the need to belong*, as aforementioned.

6.4.3.4 A typical, mediocre student without much L2 motivation (Rex)

Rex's thumbnail portrait

Rex was a thirteen-year-old student studying in Year 8 at the time of the interview. He is another tall, lean boy with a strong interest in ball games. He prided himself in being a member of the basketball and volleyball varsity team; he was also a great NBA fan and had a considerable interest in the sciences. Rex seems to be from an

affluent family and he recognises that a few significant others were influential in his English studies. This included his father, who had a lot of expectations for him, conversed with him about different matters, ranging from selecting electives to managing time. The fact that Rex's father had excellent English also made him '*want to have better English*'. Nonetheless, it was mostly his private tutor who inspired and re-motivated him to learn again in Year 5. Rex is described, by his English teacher Miss W, as a bright student with excellent academic potential. He is articulate and perceptive, and it is not difficult for him to attribute his learning behaviour to various factors.

Rex's motivational trajectory

English was not useful or important to Rex in lower primary school years when a sense of contempt in learning the language lingered on: '*I am not a foreigner. Why should I learn English?*' His dislike for English was largely due to English being '*really difficult*' and his lack of understanding of what the teacher said in class. So although he duly completed his homework, he failed to pay much attention in class or revise at home. In Year 3, owing to his poor grades, Rex was nudged by his mother to attend an English tutorial school for half a year, during which little impact was made on his grades. Rex simply refused to learn: '*I didn't think it was quite useful because I wasn't willing to learn, so even when I was listening, I didn't think it was beneficial.*'

Nonetheless, in Years 3 to 4, Rex recalls starting to develop a Feared L2 Self (i.e. a fear of not being able to master English or communicate with others in the future). Due to this fear, he was willing to attend tutorial classes again in Year 5 with a private tutor helped him turn a corner unexpectedly:

[Extract 19]

I started understanding what that tutor said and I was willing to listen to her. She told me why English is important. And afterwards, I was more willing to listen to her. I was willing to study English. So, I started to enjoy learning English and I kept learning from then on.

Since then, Rex began to '[pay] *more attention*' and '[try] *harder to understand the materials*' in class. This was the beginning of a prime time when he '[had] *more interests in English*'. He said: '*I wanted to learn. I put in more effort to understand the subject, so I started to enjoy English since then....I started to take an initiative to answer questions in class and I became more proactive.*' And having tutorial classes, Rex observed a drastic improvement in his marks in the English tests.

As Rex adjusted in a new, secondary school environment, despite the fact that English was '*easy*' for him, he was showing boredom in the lessons, commenting that: '*what my teacher [says isn't] quite useful because my grades [are] similar when I [learn] by myself.*' In Year 8, the situation worsened when Rex's lack of interest was reflected in his exam results, showing a deterioration particularly in the area of vocabulary and grammar, which involved memorisation. Rex attributes the worsening of grades to being '*a bit lazy these days*'. Rex admits that his general complacency in learning was, in fact, disguised by merely a veneer of conscientiousness at school:

[Extract 20]

LC: What are your habits of learning during term time?

Rex: During term time, you can say that I pay attention, but when I am at home, I don't really care. Yeah.

LC: What are you like at home?

Rex: When I am at home, I wouldn't take the initiative to take the book out and revise. But when I am having a lesson, you can say that I do my homework.

LC: Do you do your homework at home?

Rex: I do, but... to put it bluntly, I only do my job superficially.

LC: To do your job superficially. What do you mean by that?

Rex: That means I will be serious in class and give you the appropriate responses.

LC: But that would still be veneer appearance, right?

Rex: So, for example with speaking and listening exams, I do better. But for those areas that I have to revise myself, I don't do as well.

LC: What are the areas that you have to revise yourself?

Rex: For example, memorising vocabulary, memorising grammar and tenses and that sort.

LC: What do you do your homework?

Rex: I usually do my homework at school after school.

LC: Is there a class for you to complete your homework?

Rex: Yes, there's a classroom for us.

LC: I see! That's really good.

Rex: Because I know that I definitely won't do any work at home, so I would do all my homework at school before going home.

LC: You do all your homework on purpose before going home.

Rex: Right.

LC: So, when you said that you were doing a superficial job, do you mean...

Rex: Erm... that means... how should I put it? That means...

LC: Do you mean you are doing your homework causally?

Rex: No, not doing my homework causally. It means when I am in front of my teachers, I answer their questions and give them a response. That means I only work hard in front of others, but I won't work hard when they are not there.

As seen in Extract 20, Rex usually completed all his homework after school and then played basketball for more than two hours afterwards every day. It was a *difficult choice* between playing basketball and learning English for Rex: '*If you ask me to choose between learning and playing sports, I prefer playing sports...[I am] not so much interested in learning.*' So despite his dissatisfaction of the situation and his self-professed love for English, the strength of these feelings is insufficient to propel him to learn English outside the classroom. Rex had a deep passionate love for basketball: '*I like it because I like it*' and his devotion for the sport could be seen in Rex's recollection of what his father said to him:

[Extract 21]

He said that if I have the same attention I have for basketball and transfer it to English learning, it would be great.

Nonetheless, Rex's father helped him be more cognizant of what is happening around him, advising him not to be complacent and to work harder for his own future:

[*Extract 22*]

My dad said, 'This secondary school is quite a good school in this area, but you can't be satisfied with this. There are many better schools than this. You have to start working hard in order to compete with others.'

His father's words of warning made Rex realised that he had to achieve good results in the upcoming internal exams in Year 9 because all students' ranking would directly impact the subjects they could choose to take in the secondary school exit exams. This can be illustrated in the extract below:

[*Extract 23*]

Rex: I hope that my grades will be better in Years 9 and 10. I hope.

LC: But you'll still play basketball when you are in Year 9, right?

Rex: Yes! But.. because I am more interested in the sciences. My dad told me that there are only two science classes in this school. So your ranking must be around 80th in your year. I don't want to be streamed into the arts class. Even if you get in, there won't be any good.

LC: I see.

Rex: So I hope that my grades will be better in order to get into the science class.

LC: So you think that you want to put in more effort then?

Rex: Right.

Rex recognises that both his family and his English teacher have high expectations of him: they *‘want me to have more motivation because they also said that they have never seen me really taking a book out to read or revise seriously; and his teacher also told my mum and dad that she wanted me to have good English. She said with my abilities, my English can be very good’*. Nonetheless, all of these did not have much of an impact on Rex as he felt that he still had time to catch up:

[Extract 24]

LC: How did you feel when your ranking dropped?

Rex: I was unhappy.

LC: Did your dad say anything?

Rex: He did nag, but he said it’s only the first term now. If you can catch up in your second term and also in Year 9, it will be alright.

Having said that, Rex’s basketball peers, and, more importantly, the imminent exams, had an impact on his motivation. During the second interview, Rex’s motivation surged as the school exams were drawing nearer and as his friends began to revise frantically:

[Extract 25]

LC: Last time you said that if your basketball mates want to go home and revise, it would affect you as well. Was that in Year 7?

Rex: Year 7. I guess it did happen, but it was rare that people want to go home to revise. It rarely occurred.

LC: It rarely happens.

Rex: Now that everyone goes home and nobody plays with me, I also go home to revise.

LC: I see. All your buddies are revising at home?

Rex: Right. So, I am also revising at home.

LC: I see. Do you also want to play basketball? What do you think? Are you unhappy that you cannot play?

Rex: Me... I guess not. Revision is more important at the end of the day.

Rex's system components and signature dynamics

Initial conditions

The initial phase (Years 1 to 4) in Rex's L2 learning history is vested with an array of negative attractors operating in the attractor basin, including a dislike of English, finding English difficult, and not understanding English class. Although there are some system components, such as the opportunities to have English tutorials in Year 3, they created little perturbations in the state space. Nonetheless, Rex's Feared L2 Selves are gradually building up in this period.

An essential underlying mechanism

(a) *Movement to a new attractor state: The influence of a tutor.* The relatively strong attractor described above was stable until Year 5 when Rex's Feared L2 Selves built up to a critical point, from which he was willing to attend tutorial class once again. Here, a dramatic phase shift took place in the state space, which was attributed to an environmental factor—his private English tutor (Extract 19), creating new motivated behaviours in Rex.

(b) *The emergence of a new cyclical attractor: engagement in play.* During secondary school, although Rex's love for English remains, the state space is overridden by a newly developed attractor, which is engagement in play (his love for basketball) – a much more powerful attractor. Here, the system mainly alternates between two key attractor states: *superficial attention in class* (Extract 20) and *engagement in play* (Extract 21). At the same time, despite the fact that other attractors exist in the system, such as the forthcoming selection of electives and the fear of not choosing the electives of his choice, and his father's expectations for him (Extracts 22 & 23), they do not cause serious disturbances in the system, which could be due to his perception of time (i.e. seeing that he still had ample time, Extract 24). Nonetheless, new behaviours are evident when his evaluative mechanisms are changed (Extract 25), the system is directed into a different trajectory, exhibiting newly motivated behaviours and possibly a temporary phase transition in Rex's case.

Rex's signature dynamics

In Rex's case, the system can be seen in the movement between two fixed-point attractors: *superficial attention in class* and *engagement in play*, with the latter being much stronger in strength. It is only when the opportunities of play are absent, that the system is lodged in the former attractor state. Despite the presence of other system components in the state space (e.g. the fear of not able to select the electives of his choice, his father and teacher's expectations), they do not cause much perturbation. We can, however, observe that the system does undergo temporary transition phases in the face of external pressures, such as exams.

6.4.3.5 A motivated, yet distressed student with low English proficiency (Mary)

Mary's Thumbnail portrait

Mary, who is a fourteen-year-old, playful Year-8 student, lives with her parents and two younger brothers. Mary rarely mentions her father, but she brings up the immense influence of her mother concerning her English learning: *'since a very young age, mummy has been telling me that English is really good'*. Mary is the eldest sister at home and is also responsible for different chores, including looking after her two younger brothers, helping them with their homework and revisions and doing housework when her mother is away on holiday. Due to the noise created by her brothers, home has not been an ideal place for her to revise.

Mary is reflective and emotionally sensitive as she can easily get distressed by her poor academic results; she sometimes cries when she receives unsatisfactory feedbacks. Her negative emotions could also affect her concentration and learning in class. Still, her self-talk consoled herself many a time and she would return to her normal, happy self after a short period of time.

Mary describes herself as competitive, which was one of the motivating factors in her studies. She would compare her grades and performance in English with other classmates at different times. Despite the desire to compete against her peers and wishing not to be looked down upon, Mary lacked the confidence in her ability to master English. This was especially so when she compared herself with her younger brother, who was learning English with ease and much confidence.

Mary acknowledges that she finds all English skills (including listening, speaking, writing and reading) difficult, confessing that *'English is a subject I do worse when compared to other core subjects. It takes me more time to understand the subject whereas it doesn't take me as long to understand other subjects'*. Writing

and speaking are areas that are particularly difficult for her. Mary's grades in English are mediocre (obtaining approximately seventy to eighty out of a hundred), which is unsatisfactory for her. And not unlike her peers, she enjoys computer games during her spare time.

Mary's motivational trajectory

Mary cannot recall her years in lower primary school very well, but she remembers that it was featured with boredom, dislike and a lack of willingness and effort to learn: *'I wouldn't say that I put in a lot of effort because I didn't like!'* During Year 4, which Mary remembers, she gradually recognised the importance of English and there was a slight change in her mindset partly due to her mother's influence on her: *'It's just because my mum keeps telling me all the time. And she always says, "You have to learn English well. It has to be better! It has to be better! Your English has to be better!"'* [Extract 26] It is also partly because Mary's mother sent her to a tutorial for a month. There she was reunited with a long lost kindergarten friend whose English was much better than hers. As Mary reflected upon her own learning and was made aware that others' English was more proficient, her increased her desire to learn started to grow.

[Extract 27]

Mary: And when I was in Year 4, she sent me to a tutorial school. I had extra tutorials for a month and I realised then... I had a really good friend in kindergarten and she went to another primary school. Then we studied English together in the tutorial school because she had been learning there all along. And then I thought to myself, "Why

everyone's English is so good? But I don't know my English very well."

LC: Seeing that other's English is good, how do you feel about that?

Mary: [Sigh] I want to learn better.

LC: Have you taken any actions?

Mary: I gradually pay more attention in class.

However, despite her newly-established motivation, she still found English class difficult because: '*I [paid] attention, but it seemed that I couldn't absorb anything, which is mainly due to the teacher [speaking] really quickly*'. More importantly, her L2 learning was mostly distracted by her love for computer games. She usually completes her homework very late at night, resulting in her work being slapdash. And when she does not know how to do her homework, she simply asks her peers without trying to understand the materials. So despite being '*scared of my future*', the occasional reflections and spurs of hard work, she felt lazy in general.

[Extract 28]

Mary: I was lazy. I was lazy to revise for many of the subjects.

LC: Can you say a little bit more about this?

Mary: I didn't really revise. There's a difference between primary and secondary school. I knew that wasn't very good, but I rarely put in the effort. I was busy playing computer games.

LC: When did you start playing computer games?

Mary: I have started playing computer games since Year 4. I only think about computer games. I only do my homework really late at night and I don't want to revise.

LC: You don't want to revise.

Mary: But I do revise for my exams. In primary school, I only revised a day before the exam.

LC: When your teacher spoke really fast and that you couldn't follow, how did you feel?

Mary: I felt a bit helpless, but at that time, I didn't care about it. And when I had to do my homework...

LC: What were you thinking when you "didn't care about it"?

Mary: I was thinking: I don't want to care about it. Let's deal with it later! As time went by, because of my procrastination, the consequence is that my English is at this state now.

In Years 5 to 6, Mary becomes conscious that '*my foundation isn't very good*' and thinking to herself: '*Oh dear, I am uncertain about even some simple things.*' In Year 6, there is a temporary positive change in Mary's behaviour as she does her homework before entertaining herself with computer games. However, this change is transient and the pattern is again reverted when Mary is in secondary school, a time when she did not yet realise that the learning mode would be different in this phase of life.

In a new secondary environment, the situation starts to become overwhelming and the problem snowballing as Mary finds most subjects difficult with English as a medium of instruction. In spite of her regrets ('*And I thought to*

myself: I wish I wasn't so lazy before') and social comparison (saying *'how come they know so many words and I know so few')*, the amount of English vocabulary she has to learn is overwhelming. With this in mind, even after exerting some effort into learning temporarily, she decides to revert in play instead.

[Extract 29]

Mary:there would be a lot of words which I don't understand when I do my homework. So I would use the dictionary. Sometimes I would like to revise earlier, but I realised that there are lots of words I don't understand. Then, I wanted to use the dictionary. But when I started to check the meaning, there were so many words, and then I didn't want to continue anymore.

LC: I see. Too many words, and you don't want to use the dictionary because...

Mary: Because I was lazy.

LC: Because there were too many words.

Mary: Right.

LC: If so, you'll stop using the dictionary.

Mary: I'll check the words up again after a long while.

LC: What do you mean by after a long while?

Mary: Maybe just before the exams.

LC: How do you feel just before the exams?

Mary: Oh my goodness, I don't have enough time. And I thought to myself, "I am not going to make it. I don't have enough time." I should have

revised every week. If I revise just a few days before the exams, I really don't have enough time to memorise.

There seems to be a pattern of Mary working hard for a short period of time and relapsing back to her former state (playing computer games) due to the attribution that '*I won't understand it anyway*'. This is coupled with a deeply entrenched concept that she is endowed with the less-than-average aptitude:

[Extract 30]

I think it really depends on your aptitude. I really think so. When I compare my results with the results of my little brothers', when I look at our exam reports, our results in other subjects were the same in Year 1. The only difference is English. I don't know why.... And my mum didn't really teach him either. When he was really little, he could look at the keyboard and say a, b, c, d... and say all the alphabets. My English was really crappy in the past, but I don't know why, his English has always been really good. So, I think it really depends on your natural abilities. It does [affect me] because when I want to improve my English, I would think, "Your English isn't that great in the first place. It has always been difficult for me to learn." Yes. So, you really have to put in a lot of effort. And when I am lazy, I really don't feel like working hard. How come others don't really need to put in the effort? My little brother doesn't really have to revise and he got 100 marks. And maybe I do revise, but it's difficult for me even to get ninety-something. So, I don't want to put in the effort.

Mary recognises that there is a pattern: *'I work hard for a while, but after some time, I tend to forget about it.'* In time, this pattern is taking a toll on Mary's studies (obtaining unsatisfactory grades in Year 8) and her motivation in learning (lack of attention in class):

[Extract 31]

I would only think about that before I play. I thought to myself, "I seem to have a lot of homework to do!" But later on I would think to myself, "There should be a lot of time!" But when I started playing, time flew by and I played way too much.

Because Mary has to *'check my little brothers' homework'*, together with the time spent on computer games, she has little time left for her homework, which leads to *'not doing [her homework] seriously'*. Coupling with the fact that *'I don't really pay attention in class'*, this leads to Mary making a lot of mistakes in her work, with her saying: *'Why do I make so many mistakes? Others' works are beautiful. They have so many ticks.'* And she comments:

[Extract 32]

And gradually, I don't have so much interest to listen in class. I feel that I am a bit scared of handing in my homework because I feel that I can't catch up! Sometimes, I say to myself, 'Forget it! I don't really care!'

Indeed, Mary did not obtain good results in Year 7 and failed some of the tests. The situation aggravated whereby she failed all her tests in the first term of Year 8. Mary would cry every time when she received unsatisfactory test results and

would regret the fact that she had not revise earlier. Although she would work hard for a short while for fear that she would be scolded by her parents, she would forget it after a while and would revert to her old pattern. However, in a recent English test, she put in a lot more effort because her mother scolded her for a long time, so she put in a lot more effort. Mary spent some time in revision and finally passed her test. She said: *'Now that I passed my test, I understand that if I put in the effort, my results will be much better.'*

Mary's system components and signature dynamics

Due to Mary's vague memory of her early years, only the components from Year 4 onwards are analysed. In Years 4 and 5, the state space is featured mainly with cyclic attractors of *family influence* (Extract 26), *social comparisons* (Extract 27), *attribution* (Extract 30) and *engagement in play* (Extract 28), with the last being the most powerful and stable attractor state of all. So despite the facts that Mary compares herself to her peers (using imagery as well at times) and that her mother keeps encouraging her in English learning, which creates temporary motivated behaviour, the system is lodged in the deeply sided attractor state of *engagement in play* more frequently. When coupled with Mary's attribution (that *'I won't understand it anyway'*) and the thought that time is on her side (Extract 31), this allows the system to dwell in such a powerful attractor state throughout Mary's L2 learning history, exhibiting a behavioural pattern of procrastinations.

Despite the temporary phase shift in Year 6 when the system is directed towards motivated behaviour (possibly due the fact that students' grades are to be submitted externally during this time), in secondary school it reverts to the cyclic attractor states as aforementioned. The core system components remain unchanged,

but the general composition somewhat differs due to an increased level of difficulty in the learning materials. Here, it is harder for the system to change dramatically in the state space as it requires more energy to revert the situation. The attractor of *social comparisons* which directed the system towards motivated behaviour now does the opposite, creating frequent hindrances towards motivated behaviour. With more frequent setbacks due to a lack of effort and negative social comparisons, the system is now much more prone to be lodged in the attractor state of *engagement of play* and apathy (Extract 32).

We can observe that a key element of family influence is exerted into the system (i.e. Mary being reprimanded by her mother for a long period), it created a large impact on other components, for example the effort exerted, time perception (realising that time and tide wait for no man) and attributions (understanding that better results can be gained as she exerts more effort), causing perturbations in the system.

Mary's signature dynamics

We can observe that the state space is featured mainly with cyclic attractors of *family influence* (Extract 26), *social comparisons* (Extract 27), *attribution* (Extract 30) and *indulging in play* (Extract 28), with indulging in play being the most powerful and stable attractor state of all.

6.4.3.6 A perfect English learner (Saki)

Saki's thumbnail portrait

Saki, a 14-year-old, Year-9 student, is the only child in his family of three. His mother, who works in the tourism industry, gives Saki a lot of advice regarding English learning as she majored in English at university.

We can observe that Saki is a serious-looking youngster who seems to be very mature for his age; in fact a little too mature, especially in how he evaluates his progress in English as a seven-year-old boy: *‘In Year 1, I felt that English was very important...Because I had only learnt few [English] words in the kindergarten, I thought I didn’t have enough words under my belt in Year 1.’* For Saki, as there is a great desire to receive guidance in his learning, he is most motivated when a teacher or a senior student can direct his way. He feels inadequate without such directions: *‘I am energised when people give me encouragements’*. Another important side for Saki is his image and how he is seen in his peers’ eyes. He deeply values others’ opinions and desires to be seen as conscientious. Saki is reflective and can point out the weaknesses and strengths of his studies.

Saki’s motivational trajectory

In Year 1, Saki already recognised the importance of English, but he felt inadequate when compared to other students in his class as he only learnt very few words in kindergarten. Saki’s English grades in the lower primary school years were unsatisfactory in his eyes. Although he had improved in terms of his vocabulary, he was unhappy about his grammatical problems. As a result, he felt distressed and dejected: *‘Because I couldn’t catch up and also because everyone is really great, when I can’t do it myself, I feel inferior.’* He also developed L2-specific fears:

[Extract 33]

I felt that I would never be able to improve my English and I had some very negative thoughts.

Emotionally, Saki was stressed and he had a tendency to space out in class. During this period, he was merely scrapping past his exams. Saki attributes his lack of motivation due to a lack of guidance and support from others: '*Because there wasn't anyone guiding me. I was trying to find a path by myself*', and '*nobody taught me how to learn, so my motivation wasn't very high*'. Despite being unmotivated, he forced himself to practise grammar by completing supplementary exercises every day in Years 2 and 3. As Saki's grammar improved in Year 4, he did not do the exercises as frequently.

As Saki greatly values the support and guidance from others, saying that '*I am energised when people give me encouragements*', Saki had a complete change of attitudes towards English learning in Year 5 because of the help of an English teacher:

[Extract 34]

Saki: From Year 5 onwards, there was a primary school English teacher who inspired me.

LC: When was this?

Saki: In Year 5.

LC: Can you say a bit more?

Saki: At that time, at that time... mummy asked me to look for her after school and to be tutored.

LC: This was a school teacher?

Saki: Yes. To be tutored. And I found lots of supplementary exercise to do outside class.

LC: You found lots of supplementary exercises. I see.

Saki: Yes.

LC: What were your thoughts then?

Saki: I started to become more positive.

LC: You started becoming more positive.

Saki: And it shouldn't be impossible for me to learn English.

LC: That means it is possible to learn!

Saki: Right.

Having been '*inspired*' by a teacher who helped him with his English, he started to become more positive and thought that it is possible for him to learn good English, saying that '*[I have] to put my heart into learning, not to put myself down and say that I won't be able to do it!*' The feeling of dejection disappeared and Saki became more relaxed and not as pressurised. He gained more confidence in himself and did not feel as inferior as before, commenting: '*English isn't so difficult to learn and it is quite interesting!*' His interest in English and his motivation to learn outside class increased: he started to review the materials immediately after class every day and look for supplementary exercises to do outside class. Especially when Saki saw that his English exam scores started to improve to approximately ninety marks, he attributes this to the continuous effort he exerts into his learning during Year 6:

[Extract 35]

Saki: There was an external exam, so I put much effort into it.

LC: How did you do that?

Saki: So I reviewed the materials immediately when it was taught.

LC: So you revised on the day the things were taught.

Saki: Yes, I started to see that I began to improve. From Year 5 onwards, my marks are around ninety-something.

LC: How much time do you spend revising every day?

Saki: It's sufficient to glance over the materials quickly.

LC: Glance over the materials quickly.

Saki: Yes, because I revise the same things repeatedly.

LC: I see. Were there any other strategies?

Saki: Any other strategies?

LC: You said that you found a path yourself.

Saki: It's all about reading.

LC: Reading extensively?

Saki: Yes. And doing supplementary exercises.

LC: Doing supplementary exercises. Did you spend a lot of time on this?

Saki: Yes. Yes.

In the new secondary environment, similar to the reaction of Chris, Saki was surprised to find that he could understand English class with ease, his motivation to learn English started to increase: *'My motivation began to increase because I started to know a lot more'* and *'I was continuously learning new words'*. More importantly, the key motivator for Saki was *'to improve my grades'*. Not unlike Chris, Saki placed a key emphasis in learning English in the secondary school mainly due to the

competitive atmosphere at school, and this becomes a stage in which his motivation and confidence peaked:

[Extract 36]

Saki: At that time, I was gradually improving because a huge competition is building up and I can't lose!

LC: The competition is huge. Can you say a bit more?

Saki: This is especially so for English. Everyone has got into an English secondary school and so their English won't be too bad. Now that I am here, the competition is huge and I must work harder.

LC: I see. How did you feel about this?

Saki: Feeling... So even if it is tough, I must carry on.

Even in a new environment, the opportunity to have guidance and support was most cherished by Saki. He gained insights into the various autonomous learning strategies through seeking advice from his seniors and his mother. Not only did he watch the English news every day, he also read English newspapers and books. Saki showed determination and perseverance through the way he learnt new vocabulary: *'In the bridging course⁶ in Year 7, I said that I would learn five new [English] words every day. I have done that ever since.'* Saki also carries a dictionary with him all the time and learns new words whenever he can, which *'greatly encourages'* him in his learning progress. He kept a diary in English during a period

⁶ Such courses are usually held in the summer for primary school leavers, helping students to make smooth transitions.

of time in Year 7 and started reading English magazines, such as ‘Times’ and ‘National Geographic’ since Year 8.

Because this was a period in which Saki has ample time, he started developing his various Ideal L2 Selves and had daydreams about them: he envisioned being someone who would travel abroad, understand foreigners and translate simultaneously. Because he *‘really wanted to go abroad’*, he would like to be able to speak and write in English fluently, which would be conducive to travelling abroad. It is during Years 7 to 8 when Saki’s motivation peaked.

In Year 9, Saki’s autonomous learning both in and outside class yielded fruits as he gained confidence especially with him slowly starting to distinguish British and American accents: *‘I am starting to understand more and I can come up with the words they say immediately in my mind.’* He also gained confidence in reading and started to understand the meaning of more difficult vocabulary. Nonetheless, not every aspect was yielding positive results, as Saki felt distressed about his writing abilities because *‘my English writing has not been improved’* and he feels that *‘there’s no one who can help me in this matter’*. Despite a sense of hopelessness, he reminds himself not to give up and he said he mainly relied on reading extensively to improve his writing:

[Extract 37]

Saki: Actually I have become slightly demoralised.

LC: Slightly demoralised.

Saki: Anyway, I must continue to write.

LC: What are your thoughts when you are demoralised?

Saki: My thoughts? If you are talking about writing compositions, there is a part of me that wants to give up, but I can't. I can't because...

LC: What do you tell yourself?

Saki: What do I tell myself? I tell myself that I cannot give up.

LC: Cannot give up.

Saki: I must continue to write. Since Year 7, I have tried to keep a diary in English every day for a period of time, and the situation improved. But I am too busy now and so I am not doing that.

LC: I see. You're too busy.

Saki: Yes.

LC: I feel a bit dejected and want to give up. It's a little like being worn out from a long walk, but you have to keep going.

Saki: Right.

LC: Do you have any other thoughts regarding this point?

Saki: Because in terms of writing compositions, you have to produce something and to regurgitate materials. Because... I feel that there's no one who can help me in this matter.

However, unlike before, Saki does not have the luxury of time and therefore learns fewer new words this year and he rarely thinks about his Ideal L2 Selves. Because of an increase in workload and homework, his main goal now is to '*get better grades in my exams*', which was more pragmatic. His grades in Year 9 were also slightly regressing with his scores revolving near eighty out of a hundred.

Saki's system components and signature dynamics

(a) *In the initial condition*, we can observe that Saki's motivation to learn English is extrinsically motivated as he evaluates his grades and skills in English, saying '*I thought that my English grades were really bad*' in Year 1. It was also because of the fear of failure, the worry that '*I would never be able to improve my English*', Saki '*tries to learn constantly*'. The impact of such extrinsic motivation is that although Saki recognises that he is improving (e.g. in learning vocabulary), he also feels '*distressed*' particularly with his grammatical problems until he is in Year 5. Despite his frustration, and a general lack of motivation and confidence, he exerts great effort to improve himself (i.e. forcing himself to complete supplementary exercises out of class very day).

(b) *Phase shift: the help of an English teacher*. A veritable phase shift occurs in Year 5 when Saki has a complete change of attitudes solely because of the tutoring he receives from an English teacher after school. Here, there is a key attractor of *guidance* (the need to receive support and nurturance from others) and the existence of this attractor brings with it an immediate increase in intrinsic motivation (English is quite interesting), continuous effort in language learning (Extract 35), confidence and positive emotions.

(c) *The emergency of a new attractor: stimulation*. Not unlike Chris's situation in secondary school, in Saki's case, a new attractor of stimulation (from the competitive school atmosphere) emerges as he transits to secondary education (Extract 36). The system is shifted in the state space among some fixed-point attractors: *stimulation*, *guidance*, and *fear of failures*. Here, we can observe that the state space is in different dynamics. With this new-found stimulation, together with the attractor of *guidance*, the system oscillates between the attractors. The attractor basin was deepening as Saki entered secondary school. Again, the competitive

learning environment at school matched his internal need to be seen as a conscientious student who was good at his studies. Because of this, he embarked on various autonomous learning strategies as well as on developing his ideal L2 selves. However, in year 9, the attractor basin became shallower as Saiki was preoccupied with his other school work and did not have the time to learn autonomously as before.

Saki's signature dynamics

For Saki, we observe that the signature dynamics is that the system generally moved between the attractors of *stimulation* (the need to compete with others), *guidance* (the desire to be guided and nurtured), and *fear of failures*.

6.4.3.7. An unmotivated, problematic student with poor English proficiency (Danny)

Danny's thumbnail portrait

Danny was a thirteen-year-old boy studying in year 7. He came from a divorced family and he lives with his grandparents. He never mentioned his father and although he only saw his mother during weekends, he expressed a great desire to do well to meet her expectations. Danny seemed to have a very good relationship with his mother. Although she was very busy at work, if she found time during weekdays, she would go and see Danny. Danny developed a possible self of becoming an engineer. Although Danny found learning English very difficult, he seemed to be an optimistic boy and was facing his difficulties with ease.

Danny's motivational trajectory

In Year 3, Danny's motivation towards English learning was low and he felt lazy because English was '*really difficult*' and '*I didn't know how important English is*'. During that time, English lessons were boring for Danny, and he spaced out and did not listen to what the teacher says. He also agonises when he does his homework and although Danny's pressure of completing his homework was relieved by soliciting help from his classmates, he did not master the materials. As Danny recollects his learning experiences, he recalls being 'lazy' and '*did not put any effort into learning*':

[Extract 38]

Danny: I didn't want to do my homework, but I had no choice. When I didn't know how to answer the questions, I was in agony. I was holding my pen with the textbook right in front of me, not knowing what to do. Sometimes, I called people up to ask for help.

LC: But you would call your classmates up for help.

Danny: Yes, when I can't take it anymore.

LC: Why?

Danny: Because I didn't know what to write even if I look at the book, even when I read it over and over again.

LC: Did you call your friends all the time?

Danny: I called them all the time.

LC: Did it help you to call your friends up?

Danny: At that time, I didn't really think much of it. I thought it was quite good. But thinking back, I know it wasn't right because you didn't learn anything.

The situation started to shift during Years 5 and 6 when Danny's family were '*nagging him every day*' which was '*annoying*' for him. In addition, there were also social comparisons when Danny started to notice that '*others' grades were much better than mine*'. Danny became increasingly dissatisfied with the situation and started to reflect upon the lack of effort on his side: '*I actually didn't really put in much effort*' and he began to work harder, which led to a satisfactory improvement in his English grades and sense of achievement, realising that '*if you put in the effort, it will be worth it!*' It was also at this point when Danny gradually recognised the importance of the English language. The cause of change during this period can be depicted in the following extract.

[Extract 39]

LC: [The] line representing your motivation continues to go up, so what caused the change?

Danny: Maybe because when I saw that others got really good grades and my grades were bad...

LC: When was this?

Danny: Maybe in Years 5 and 6.

LC: How about in Year 4?

Danny: In Year 4, I started to change a little. I began to think that my family was annoying. Yes, they were really annoying. They were nagging me every day.

When Danny started studying in secondary school, his motivation continued to increase as he realised the great importance of learning English. He started to take

initiative to learn English on his own and embarked on activities such as reading English newspapers, borrowing English books in the library and watching English television: *'I hadn't really been watching English TV programmes because I couldn't understand them. I thought they were boring. However, I realised later on that if I watch them more often, I'll gradually understand them.'*

During the interview, Danny's evaluation of his own performance was contradictory at times: He suggests that he did have a sense of satisfaction as he could see that the effort he had exerted yielded some fruits, but he admits later on that *'I don't think I am very hardworking now'* and that he did not *'put enough hard work into it'*. This can be illustrated by the following extract:

[Extract 40]

Danny: I don't think the grades are very good. They are only OK.

LC: The results are not so good because...

Danny: I haven't put in sufficient effort. I have to put in more effort.

LC: Can you say how you were not putting enough effort?

Danny: I haven't put in enough time.

LC: How much time have you put in? Can you explain a bit more?

Danny: Before I read for half an hour and now I read for an hour. But maybe even reading for an hour is still not enough. Maybe you'll have to read for two hours.

LC: Is there anything that stops you from not revising enough? Is it about reading?

Danny: Revising.

LC: Revising. So you haven't revised enough. Is there anything that stops you from revising?

Danny: Maybe one of the reasons is that I am too nosy. If people are watching TV outside, even when I am revising, I will go and chat for a short while and when I am back, I seem to forget what I was revising. So I didn't really pay too much attention.

LC: Is this a common phenomenon?

Danny: Yes.

So despite being motivated, Danny was easily distracted when he was revising for tests and exams and so he was not able to revise thoroughly. He felt that he was not making sufficient effort. However, ultimately, Danny admitted not having a strong intrinsic desire to learn English: '*I actually don't like it, but I know it's important.*' His dislike for English was lessening throughout the years. It changed from a complete hatred for English in Year 3 (rating 10 out of 10 in dislike) to approximately 8 out of 10 in Years 5, and to 6 out of 10 in Year 7.

Danny did not have any thoughts regarding who he would like to be as an English user or any specific language learning goals. He merely had a vague goal of '*wanting his English to be really good.*'

Danny's exam results in English were appalling despite his increased motivation. He attributed this to the fact that he could not spell:

Most exams are about spelling. So even if they have given you a list of words to revise, saying there are more than a hundred, but I don't know why I can't master the spellings.

Danny's system components and signature dynamics

Initial condition

The initial condition was featured by lack of motivation for four years in primary school (Extract 38), which was largely due to the attractor of *negative attitudes towards English* (with a strong dislike in English and a view that English is unimportant) in the state space which was obstructive to his learning motivation and hence a lack of effort. Although this attractor was made shallow (as the dislike towards English was lessening throughout the years), it caused a general complacency and avoidance in his studies. Here, Danny had neither effective learning strategies nor any goals, which allowed the attractors to form a relatively stable attractor basin in the state space.

There was a phase shift in which the attractors of *social comparisons* as well *family influences* (Extract 39) caused some perturbations in the system since Year 4, which caused a change of trajectory of the system and an exhibition of different behavioural patterns (with Danny learning autonomously). Despite a slight change of dynamics in the state space, the attractor of *negative attitudes towards English* remained relatively strong (and also due to a lack of genuine interest and motivation), the system was starting to shift, but remained relatively rooted in the attractor state of *avoidance* (whereby Danny did not put all of his effort into revision and was often easily distracted, see Extract 40).

Danny's signature dynamics

The signature of dynamics is featured by the movements between several key attractors including *negative attitudes towards English, social comparisons, family influences* and *avoidance*.

6.5 Discussion

The primary objective of this study was to carry out an empirical investigation using the proposed RQM approach. Therefore, the discussion will be structured according to the three phases of the RQM template, first addressing the question of learner archetypes and then examining issues concerning the student interviews and the identification of signature dynamics.

6.5.1 Learner archetypes

A key aspect of RQM is the assumption that even complex systems such as a learner group in a language class display a limited number of patterns due to the system's self-organising capacity. One of the central issues in this respect is whether learner archetypes exist in teachers' minds. The answer is affirmative: the ease with which teachers in the focus group agreed on a number of seemingly well-known learner types indicates that, instead of thinking of 30+ unique cases in a class of 30+ students, they perceived the student body along a smaller number of categories, thereby confirming the existence of settled attractor states. This is in line with the general process of social categorisation mentioned earlier and it is also likely to resonate with many classroom practitioners' intuitive awareness of 'familiar' types of students, even when they start working in a new learning environment; indeed, as Dörnyei (2014, p. 90) pointed out, 'there is wisdom in the saying that an experienced

practitioner has “seen it all”. However, it is worthy to note that that some of the seven learner prototypes produced in this study appear to be idiosyncratic to the specific sample, which raises the question of how much the specific categorisation process applied in the present study influenced these outcomes.

Having interviewed learners associated with each archetype, it was found that the students nominated by the teacher focus group did not always neatly fit the description of the archetypes. This mainly reflects a methodological concern that the prototypical participants nominated by the teachers did not always agree to be interviewed (and I had to resort to ‘prototype-resembling’ students). Furthermore, I found that even one of the prototypical students did not match the archetype description, which could to be a function of the *actor-observer effect*, according to which ‘attributions differ as a function of the perspective of the attributor’ (Robins, Spranca, & Mendelsohn, 1996, p. 375). Since students and teachers have different roles and perspectives, they may have access to different types of information from which to construct perceptions and form attributions.

A further issue regarding the archetypes concerns their stability. While dynamic systems are never fully static, they tend to settle into temporary attractor states (cf. Hiver, in press). The research potential of focusing on archetypes lies in this relative stability in that it can provide a certain degree of predictability. The data show, however, that even within a period of a year some learners belonging to one archetype shifted into another state as a result of a restructuring of the attractor basin relevant to the particular person. As Byrne and Callaghan explain, such relocations to another domain – that is, phase shifts – can be seen as characteristic features of the overall evolution of a complex system: ‘Change is change of *kind*’ (Byrne & Callaghan, 2014, p. 59; emphasis mine).

The observation of phase shifts may not necessarily be bad news for researchers, because studying these movements might constitute a fruitful direction for understanding the dynamic motivational tapestry of the classroom. Examining the shifts may also lead to the understanding of how archetypes can be intentionally ‘manipulated’ – in this case by motivating learners – to change the system’s makeup. Indeed, the finding that individuals are not fixed in a particular in-class archetype but can shift to another state may serve as an encouragement for educators who are dealing with demotivated and struggling L2 learners because it suggests that they can be moved into a re-motivated state if appropriately principled guidance is provided.

Finally, let us return to the question as to what extent the emerging archetypes are generalisable. Even given the various reservations concerning the nature and the stability of archetypes mentioned above, it seems that defining archetypes as the first phase of RQM did indeed fulfil the role of producing purposive sampling for the subsequent qualitative interviews. It was reassuring to find that when each selected learner’s case was examined in detail, generic topics and issues that have received a great deal of attention in the literature were uncovered, thereby providing evidence that the archetypical learners represented generalisable phenomena.

6.5.2 Student interviews and signature dynamics

One of the important lessons of the study is that it proved to be more difficult than expected to identify prototypical students for every archetype. Because the focus group assigned only one or two typical students for each archetype, I had to sometimes resort to examining slightly less typical students. This is one of the reasons why the students nominated by the teacher focus group did not always

provide a close match with the description of the archetypes. In retrospect, it would have been useful to have spent more time in the field with the aim of identifying and verifying the prototypical students. An important task for future research in this respect may be to explore whether teacher-defined archetypes differ from the ‘learner types’ identified by the students themselves.

Looking back at the interview process in general, it seems that the qualitative interviewing phase relied primarily on the students’ accounts. (Although I did interview two further teachers at this stage, the focus there was on general issues concerning the classrooms without trying to obtain specific data to complement the interviewed students’ stories.) It is likely to be the case that a more balanced picture would have been achieved by integrating learner and teacher accounts, particularly regarding the performance of academically less successful students. In a similar vein, triangulating the data by conducting classroom observations, as well as examining more than one student associated with each archetype, might be beneficial in producing a thicker description of the attractor states in the system.

Regarding the nature of signature dynamics, it was found that defining the exact nature of what constitutes a ‘signature dynamic’ raised some important questions. Would it be better, for example, to restrict a signature dynamic to some crucial aspect of a case – for example, as was the case with Chris, the matching of a competitive classroom structure with a competitively oriented student who wishes to prove himself – or would it be more advisable to perceive a signature dynamic more like a trajectory that indicates the ongoing direction of system behaviour?

Alternatively, would it perhaps be more fruitful to describe signature dynamics through the characterisation of the attractor basin associated with a student’s motivational makeup? In other words, Dörnyei’s definition of signature dynamics as

‘main underlying dynamic patterns’ (Dörnyei, 2014, p. 87) leaves open the question of *patterns of what?* Indeed, it may be that investigating dynamic patterns from various perspectives can lead to a more sophisticated understanding of learners’ signature dynamics.

At this point it may be conducive to ask a further, critical question: Would it have been possible to understand the composition of and fluctuations in Chris’ motivation *without* adopting a dynamic systems approach? In other words, can a complex dynamic systems approach generate insights that other methodologies cannot? While it is recognised that one study can offer only limited basis for generalisation, the answer to these questions is affirmative. Without an appropriate toolkit (cf. MacIntyre & Serroul, in press) and an understanding of the functions of attractor states – particularly the ways in which a complex dynamic system oscillates between cyclic attractor states within a closed loop of periodic movement – it would not have been possible to identify and conceptually account for the changes Chris describes in his account of his evolving motivation. It is exactly because complex dynamic systems theory enables researchers to *identify* and *conceptualise* such systematic patterns and periodic fluctuations in learner dispositions that it is seen as a powerful framework for future L2 motivation research.

Finally, an implicit assumption in Dörnyei’s (2014) proposal of RQM was the belief that each archetype can be matched with one dynamic pattern, hence the term ‘signature’ dynamic. It is, however, also conceivable that there are several well-worn pathways leading to the same broad outcome. Here, too, only further research involving multiple interviewees linked to an archetype can offer an answer. Nevertheless, the generic nature of the dynamics identified in the learner cases suggests that even if there *is* more than one pattern leading to an attractor state or

limited number of attractor states between which a systems oscillates, the total number is likely to be small, an assumption that is in accordance with the earlier argument concerning the limited variability in complex systems.

6.6 Conclusion

The application of RQM in the present study reveals both its strengths and its limitations. On the positive side, the RQM template generated a systematic research process, resulting in rich data that shed light on the underlying issues from various angles. There is no doubt that a close understanding of the specific learning context and its dynamic characteristics are gained. On the other hand, however, I have also encountered methodological challenges in identifying the principal attractor states and the corresponding learners. Nonetheless, as Dörnyei argues, one of the least convincing aspects of qualitative methodology is the justification of the broader relevance of qualitative results in terms of some vague ‘resonance’ with readers’ experiences, and it is in this area where, at its best, RQM can offer improvement; the template can be useful in highlighting aspects of system dynamics that are so essential that they can reasonably be expected to be echoed in other situations. In other words, as Dörnyei (2014, p. 90) states, RQM offers a research template for deriving essential dynamic moves from idiosyncratic situations in a systematic manner; it ‘utilises the basic emerging commonalities in the dynamically changing social world’. Thus, although this study has not implemented the original ideas to the full, the good news is that the results and experiences I have gained still maintain the possibility that RQM can fulfil its potential in future research.

Chapter 7

Motivation and vision: An analysis of future L2 self images, sensory styles, and imagery capacity across two target languages (Study II)

7.1 Introduction

The purpose of the present study is to investigate whether there is an interrelationship among various sensory, imagery capacity, future L2 self-guides and criterion measures in two target languages (English and Mandarin) in the Chinese context. This is a continuation of a line of studies, which suggests that English learners with a stronger visual learning style preference are more likely to demonstrate a robust visual imagery capacity, and are therefore more likely to develop a strong Ideal L2 Self (Al-Shehri, 2009; Kim, 2009; Kim & Kim, 2011). This finding is of great relevance because it has revealed a developmental pathway of the Ideal L2 Self, which, according to much research, is strongly linked to motivated L2 behaviour (e.g. Al-Shehri, 2009; Kim, 2009; Kim & Kim, 2011; Csizér & Kormos, 2009; Eid, 2008).

Although past research has confirmed the links between sensory styles, imagery capacity, future L2 self-guides and criterion measures, it has focused largely on one single language – English. So far, only one previous study has examined the cross-linguistic links in three target languages (Eid, 2008) and it yielded some mixed results. In this regard, the present study aims to validate Eid's findings by exploring the cross-linguistic issues in a new social context – Hong Kong. A questionnaire survey based on Eid's study was administered to 172 Year 8 Chinese students (ages 13-15) learning both English and Mandarin in a junior high school. The instrument

included three key areas: LEARNING STYLES - Cohen, Oxford and Chi's (2005), Reid (1984), and VISUALIZATION ABILITY - Richardson (1994), MOTIVATION - Taguchi et al. (2009). Two post-survey focus group interviews were also conducted with a subset of students. The results indicate significant positive links among various sensory styles, imagination and different future self-guides in both English and Mandarin, which suggest that the visual, auditory and imagery capacities may be key components in the development of learners' future L2 self-guides. In addition, contrary to Eid's findings, learners' Ought-to L2 Selves had moderate motivational effects on L2s learning, which could be attributed to the unique family culture in the Chinese context. This study will conclude with an analysis of cross-linguistic issues and a discussion of theoretical implications.

7.2 The L2 Motivational Self System

Over the past five years, there has been a proliferation of studies on learners' self-concepts in the L2 motivation literature, exploring the perception of future self-states in particular (e.g. Csizér & Kormos, 2009; Ryan, 2009; Taguchi et al., 2009). These studies tie in with the human race's long-standing interest in the self: who they are and what they aspire to become in the future. Dörnyei's (2005, 2009a) 'The L2 Motivational Self System' has provided a comprehensive L2 motivation construct and framework to explore the relationships between the self and L2 learning. The L2 Motivational Self System has drawn on possible selves theory (Markus & Nurius, 1986) and self-discrepancy theory (Higgins, 1987; Higgins, Klein, & Strauman, 1985), which highlight the discrepancies between the current and the future selves that can elicit affect, which, in turn, may lead to actions to reduce the gap. In the

context of L2 learning, Dörnyei (2005, 2009a) proposes that if L2 learners can visualise who they aspire to become in the future or who they are expected to be (i.e. their Ideal L2 Self and Ought-to L2 Self), their L2 motivation will increase. His framework consists of three components:

1. **Ideal L2 Self** – the L2-specific facet of one’s ideal self: If the person we aspire to become speaks an L2, the Ideal L2 Self will be a powerful motivating factor as we strive to reduce the discrepancy between our actual and ideal selves.
2. **Ought-to L2 Self** – the attributes that an individual believes s/he ought to possess to avoid possible negative outcomes. Therefore, this is someone else’s vision for the individual and may bear little resemblance to the person’s own desires or wishes.
3. **L2 Learning Experience** – situation-specific motives related to the immediate learning environment and experience (e.g. the positive impact of success or an enjoyable language course).

A core characteristic of this construct is that the possible selves are closely intertwined with the imagined visualisation – i.e. vision – of the learners’ future L2 identity. Vision is defined as ‘a mental representation that occurs without the need for external sensory input’ (Stopa, 2009, p. 1). These mental images can reflect reality or imagined fantasies in that various forms of imaginary perception—e.g. visual, auditory, olfactory, or tactile—are conjured up deliberately for a particular purpose. Scholars have emphasised the role of imagination and imagery in the core content of possible selves. For example, in their seminal paper *Possible Selves*, Markus and Nurius (1986) cite many empirical research findings, which point towards the power of process imagery in motivating an individual’s achievement of

goals. In his influential paper *The Motivational Self System*, Dörnyei's (2009a, p. 15) asserts that images and senses are integral components of Ideal L2 Self and maintains that it is the 'experiential element that makes possible selves larger than any combinations of goal-related constructs'. The key is that learners with a vivid L2 self-image, of which imagery is an integral component, are more likely to be committed, motivated L2 learners.

7.3 L2 motivation and imagery

In the context of L2 learning, the connections between imagery and L2 motivation has been confirmed in a line of research conducted in the past few years. Based on the L2 Motivational Self System, Al-Shehri (2009) investigated the relationship between L2 learners' visual learning style preferences and their motivation and examined altogether 200 Arab students: they are 78 university and 102 secondary school students who studied English as a foreign language in the United Kingdom and in Saudi Arabia respectively. The study was conducted to test the hypothesis as to whether learners who exhibit a visual learning style preference are more likely to possess stronger capacity for visual imagery and imagination, and are therefore more likely to develop a stronger Ideal L2 Self. The results found strong, significant correlations between the students' visual style, their Ideal L2 Self and motivated L2 behaviour. These L2 learners' visual style correlates highly with imagination ($r=.40$, $p<.01$), Ideal L2 Self ($r=.65$, $p<.01$), and motivated behaviour ($r=.69$, $p<.01$), which confirms the initial hypothesis about a robust relationship between these factors. A strong correlation between the Ideal L2 Self and self-report effort in English learning was also found.

Despite the strong link between visual style and the Ideal L2 Self, Al-Shehri (2009) did not incorporate other perceptual learning styles in his investigation. To fill this gap, Kim (2009) conducted a follow-up study in Korea which incorporates other perceptual learning styles (e.g. auditory style, kinaesthetic style and the capacity to imagine). The results of his questionnaire survey with 974 Korean primary school students not only confirm previous findings, but they also point to a significant positive correlation between auditory learning style and imagination, Ideal L2 Self and motivated behaviour. A strong significant correlation was also identified between motivated L2 behaviour and Ideal L2 Self. However, no significant correlations were established between kinaesthetic learning style, imagination, Ideal L2 Self and motivated behaviour.

Inspired by these results, Kim and Kim (2011) further extended the enquiry from primary to secondary school students in Korea. Conducting a survey with 495 high school learners, they found significant correlations between the Ideal English Self and various factors, including visual learning style preference, auditory learning style preference and imagination. The results indicate that they are key components in the formation of a vivid Ideal L2 Self, which is highly correlated with motivated L2 behaviour. Using sequential regression analysis, 57% of the total variance of students' motivated L2 behaviour is explained by the Ideal L2 Self, visual, kinaesthetic, and auditory learning style preferences.

Although research has firmly established links between the Ideal L2 Self and visualised imagination and various criterion measures, the focus was solely on one language – English. As Henry (2011) notes, the motivation of learners who are learning two or more L2s simultaneously also deserve empirical investigations. In this regard, Eid (2008), in her master's research at Nottingham University, studied

93 Cypriot secondary school students, who were learning three additional languages, namely English, Italian and French. She incorporated additional dimensions, including the Ought-to L2 Self and auditory learning style into Al-Shehri's (2009) questionnaire.

The results identified interesting interactions between the Ideal L2 Self, imagination, motivated behaviour and academic achievements. Although the Ideal English Self was significantly more robust than the other Ideal L2 Selves ($M=4.41$ out of a full score of 5), it was the Ideal Italian Self (with significantly weakest strength of $M=3.65$) that correlates most strongly with imagination ($r=.32$, $p<.01$), motivated behaviour ($r=.70$, $p<.01$) and grades in Italian exams ($r=.46$, $p<.01$). The Ideal English Self, on the other hand, only correlates with two factors: motivated behaviour ($r=.45$, $p<.01$) and imagination ($r=.30$, $p<.01$). It had no significant correlation with academic achievements in English. Despite the positive and significant correlations between the various Ideal L2 Selves and imagination, Eid (2008), surprisingly, found no link between the Ideal L2 Selves and the two sensory styles - visual and auditory learning styles.

As can be seen in Table 7.1, which shows Eid's main findings alongside the results of Al-Sherhi (2009), Kim (2009), the Ideal L2 Self was found to explain a significant amount of variance of achievement in all three target languages, whereas the sensory and imagery variables produces mixed results. Yet, these studies reported above produced sufficient evidence to make us realise that imagery matters, thereby warranting further systematic studies.

Table 7.1 Correlations between the Ideal L2 Self and various factors as identified in four studies

	Al-Shehri (2009)	Kim (2009)	Kim & Kim (2011)	Eid (2008)		
	Ideal English Self	Ideal English Self	Ideal English Self	Ideal English Self	Ideal French Self	Ideal Italian Self
Motivated behaviour	.78**	.58**	.72**	.45**	.56**	.70**
Imagery capacity	.46**	.26**	.27**	.30**	.19	.32**
Visual style	.65**	.34**	.39**	-.00	.09	.19
Auditory style	---	.29**	.21**	-.02	.08	.10
Kinaesthetic style	---	.03	-.14**	---	---	---
Grades	---	---	.23**	.17	.32**	.46**

Note. A missing coefficient means that the variable was not assessed in the particular study.

** $p < .01$

The significance of this study lies in the exploration of the mechanisms of visualised imagery in learners who are learning two additional languages simultaneously. It aims to address key questions such as: How is imagery linked to learners' various future L2 self-guides? Does it have a direct or indirect influence on L2 motivation? The answers to these questions will have pedagogical implications and can provide frontline teachers an alternative method to motivate L2 students. The use of imagery is the most natural, integral cognitive process of human cognition (Klinger, 2009), which could be a useful resource for both students and teachers in the L2 classroom. Indeed, the strength of mental imagery is reflected in

its plasticity: individuals can use it to rehearse behavioural sequences and create images that represent desired and feared parts of their selves. Images that are used to represent one's self are 'likely to have direct and important emotional consequences because perception of self is fundamental to the individual's mood, functioning, and psychological well-being' (Stopa, 2009, p. 5), and can therefore be the 'language of goals' (Conway et al., 2004).

Another aim of this study is to examine the Ought-to L2 Self and to explore how this self might compete or complement the Ideal L2 Self. In the construct of L2 Motivational Self System, the Ought-to L2 Self is said to have motivational effects: it has a preventive role in 'avoid[ing] negative outcomes' and has the properties of the 'more extrinsic (i.e. less internalised) types of instrumental motives' (Dörnyei, 2009a, p. 29). However, the Ought-to L2 Self in various L2s were found to be uncorrelated with motivated L2 behaviour in Eid's (2008) and other studies (Csizér & Kormos, 2009; Kormos & Csizér, 2008; Csizér & Lukács, 2010). Csizér and Kormos (2009, p. 109) concluded that the role of the Ought-to L2 Self seems to be 'marginal, as its contribution to shaping students' learning behaviour was weak and reached the level of significance only for the university student population'. To further examine the nature and role of the Ought-to L2 Self, it is worth investigating the construct in the Chinese context since elders' or parents' expectations are highly valued in such a culture.

Finally, the present study sets out to explore the contextual factors concerning the way in which learners' future L2 self-guides are developed through learners' own voice. In this vein, in-depth, post-survey focus group interviews were conducted to tap into students' attitudes regarding the simultaneous learning of two L2s and their experience of using imagery in L2 learning. Voices from the learners

will be informative to frontline L2 teachers, educators and administrators when designing L2-related materials and/or curricula.

Put simply, the aims of the present study are twofold: first, to test if Eid's (2008) findings can be replicated in the Chinese context, and second, to examine the contextual factors concerning the cross-linguistic motivational features in the social context of Hong Kong. There are four research hypotheses in this study:

Research hypothesis 1 (H1): Ample research has confirmed a strong link between Ideal L2 Self and various criterion measures. This link may also be replicated in the context of Hong Kong.

Research hypothesis 2 (H2): Although previous research has shown that the Ought-to L2 Self only contributes marginally to L2 motivation, there should be a positive correlation between the participants' Ought-to L2 Self and motivated behaviour in the Chinese context.

Research hypothesis 3 (H3): If a core characteristic of motivation is related to the imagined visualisation of the learners' future L2 identity, there should be a significant positive link between the learners' (a) *future L2 self-guides*— both the Ideal and the Ought-to L2 Selves; (b) *sensory styles* such as visual or auditory style; and (c) *imagery capacity* in both languages. Al-Shehri (2009), Kim (2009), and Kim and Kim (2011) have confirmed such a link, thus supporting the prominent roles of imagination in the Ideal L2 Self. However, no such correlations were identified in Eid's (2008) study. The present research will shed light on this debate.

Research hypothesis 4 (H4): The learners should have *distinct* language self-guides in the different target languages they learn. That is, their Ideal L2 Self

should be distinct from their Ideal L3 Self, and their Ought-to L2 Self from their Ought-to L3 Self.

7.4 Method

7.4.1 Participants

A total of 172 Year 8 students aged between 13 to 15 (82 boys, 88 girls, 2 with missing data), who were studying both English and Mandarin at a lower intermediate level as school subjects, participated in the questionnaire study in February 2010. Reasons for selecting this age group were threefold. First, these participants were sufficiently mature to understand concepts in L2 learning, sensory styles and imagination. Second, they were in junior secondary school which means that they are not yet under pressure from public examinations and are relatively more available to participate in the study.

The participants were from a band one⁷ EMI (English as a medium of instruction) school in Hong Kong. English is used as the language for teaching and learning for all the subjects apart from Mandarin, Chinese and Chinese history. In this particular EMI school, the Year 8 participants had eight English lessons totalling to five and a half hours each week. Mandarin, on the other hand, is an L3 with much less emphasis in a regular school. Students only had to take one forty-minute Mandarin lesson per week.

Despite an obvious emphasis on English, both English and Mandarin are equally valued in the wider society. In fact, Mandarin (also known as Putonghua –

⁷ Local secondary schools are categorised into three bandings, ranging from bands one to three. Schools in band one are those with the highest intake of high achievers.

meaning ‘common language’ in Chinese) is becoming increasingly important as tens of millions of independent travellers from Mainland China visit Hong Kong every year under the Chinese Central Government’s new Individual Visit Scheme. Mandarin has therefore become an important language widely used in popular tourist areas. As an official language of China, it is gradually gaining importance in the Hong Kong education system as Mandarin is increasingly used as the medium of instruction of Chinese language lessons (Gao, Leung, & Trent, 2010). At the same time, English being a global lingua franca is still most enthusiastically promoted by schools and the local education bureau is determined to develop and maintain students’ proficiency.

7.4.2 Instruments

This study consisted of a self-report questionnaire survey focusing on the two target languages – English and Mandarin. Originally developed by Eid (2008), the motivational measure in the instrument were based on Taguchi et al.’s (2009) questionnaire, the visual and auditory style scales on Oxford and Chi’s Learning Style Survey and Reid’s Perceptual learning Style Preference Questionnaires, and the imagery capacity scale on established imagery questionnaires in Richardson (1994). The criterion variables measured in our survey included measures of intended learning effort and actual achievement grades in both languages. The self-report items were measured using a five-point Likert-scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Students were merely asked to fill in a number for a particular language (English or Mandarin) for the possible self-guides. Additional questions were also incorporated to elicit relevant personal information of the

participants (see Appendixes B & C for the questionnaires in English and Cantonese respectively). The main variable groups in the questionnaire were as follows:

- **MOTIVATION:** that is future L2 self-guides– both the Ideal L2 Selves and the Ought-to L2 Selves (five items each for both English and Mandarin);
- **SENSORY STYLES:** visual learning style (five items) and auditory learning style (five items);
- **IMAGERY CAPACITY:** the ability to create visual imagery in one's mind (five items);
- **CRITERION MEASURES:** self-report learning effort (five items for both English and Mandarin) and actual achievement grades in end-of term L2 exams.

Background questions were included:

- **PERSONAL VARIABLES,** such as students' gender, their language and education backgrounds (eight items);
- **FOCUS GROUP PARTICIPATION,** that is, students were asked to indicate their willingness to participate in a focus group and whether they would like to obtain results of the study in the future (two items).

The English version of the questionnaire was translated into Cantonese by the researcher, and was then edited by a professional English-Cantonese translator. The questionnaire was piloted in two classes (n=60) in two independent secondary schools in Hong Kong to explore whether there were any difficulties for students in the same age group to comprehend the questions. The administrators were asked to take note of any problems encountered by the students but no comprehension issues were recorded in the two classes.

7.5 Data collection and analysis

Prior to the survey, the school was approached through an acquaintance of the researcher who was employed there as an English teacher. A proposal outlining the purpose and details, together with the actual questionnaire, was sent to the school administrators. Permission was granted by the heads of English department and the headmaster of the school. The survey was administered to five Year 8 classes by the same English teacher during home period, and students were informed about the study and the purposes before the actual survey. They were told that they had complete freedom and choice in participating in the study and their performance would not affect their grades. Students were informed of the potential benefits of participating in this study, including the possibility of raising their metacognitive awareness of their language learning style and L2 motivation; they would also have a taste of being a participant of a research study and would be able to obtain the results of the study at a later stage. The students took approximately fifteen to twenty minutes to complete the survey.

In addition to the quantitative element, qualitative data was also collected following the initial analysis of the survey data. Two post-survey focus group interviews, with four students in each group (5 boys and 3 girls in total), were conducted to explore the issues in greater depth. Both interviews took place after school by the researcher in Cantonese and each lasted approximately an hour. Consent from both the informants and their parents were sought prior to the interviews. Semi-structured questions adapted from Ryan (2009) and Eid (2008) were employed (see Appendix D for interview questions). These sessions were audio-recorded and were later transcribed and translated into English by the

researcher producing a corpus of nearly 11,700 words. Pseudonyms were employed for the participants in the report.

Survey data were coded in SPSS version 18.0. First, Cronbach's alpha coefficient was processed to establish the internal consistency of the scales. Second, Pearson product-moment correlations were used to explore the relationship between the future self-guides, various criterion measures, and sensory-related learning style preferences. Correlations and multiple correlations were conducted to determine the relationships among the variables. Paired samples *t*-tests were processed to compare the future self-guides across the two target languages. As for the qualitative data, thematic coding analysis was conducted whereby the data were coded. Common themes, including participants' attitudes towards English and Mandarin, English- and Mandarin-related future self-guides, and effort in the two languages, were identified and categorised.

7.6 Results and discussion

7.6.1 Internal consistency reliability

To examine the reliability coefficients for the various multi-item scales, Cronbach's alpha internal consistency reliability coefficients were computed using SPSS version 18.0. Table 7.2 presents the reliability coefficients for the various multi-item scales. Most of the reliability coefficients are above the recommended level .60. However, similar to the findings in Eid's (2008) study, the multi-item scale of Visual Style attaining an unexpectedly low Cronbach's alpha coefficient of .49 (with the deletion of two question items, i.e. questions 17 and 28). As this research serves as a

replication of Eid's (2008) study, the scale of Visual Style was not excluded from the analysis.

Table 7.2 Information about the multi-item scales

Variables	No. of items	Cronbach's Alpha	Sample item
Ideal English self	5	.78	<i>I often imagine myself speaking these languages as if I were a native speaker of these languages.</i>
Ideal Mandarin self	5	.81	
Ought-to English self	5	.77	<i>I have to study these languages, because, otherwise, I think my parents will be disappointed with me.</i>
Ought-to Mandarin self	5	.76	
Intended effort in English	5	.77	<i>I am prepared to expend a lot of effort in learning these languages.</i>
Intended effort in Mandarin	5	.80	
Visual style	3	.49	<i>I learn more by reading textbooks than by listening to lectures.</i>
Auditory style	5	.69	<i>I learn better in class when the teacher gives a lecture.</i>
Imagery capacity	5	.68	<i>If I wish, I can imagine some things so vividly that they hold my attention as a good movie or story does.</i>

7.6.2 Correlations between the Ideal L2 Self and various criterion measures

The results identified strong positive correlations between the two ideal self-guides (English and Mandarin) and learners' effort in L2 learning (see Table 7.3). These results highlighted the motivational power of the Ideal L2 Self, thus confirming the first hypothesis and the findings from existing literature (Al-Shehri, 2009; Kim, 2009; Kim & Kim, 2011; Eid, 2008; Csizér & Lukács, 2010).

In addition to the strong correlations described above, the results revealed moderate links between the ideal self-guides and the actual grades. There is a correlation of .24 between the Ideal English Self and English grades, and a correlation of .42 between the Ideal Mandarin Self and Mandarin grades. In convergence with other studies (Eid, 2008; Kim & Kim, 2011), the Ideal English Self seems to have much less effect on the participants' actual academic achievements when compared to a stronger correlation between the Ideal Mandarin Self and the academic achievement. In the same vein, the learners' French-related ideal self-guides and the Italian-related ideal self were found to correlate significantly with the French grades ($r=.32, p<.01$) and the Italian grades ($r=.46, p<.01$).

The reason for a comparatively weaker correlation between the Ideal English Self and English grades could be twofold: first, Hong Kong lacks a social environment conducive for using and practising English, and second, English and the participants' mother tongue—Cantonese are linguistically and typologically very different. Mandarin, on the other hand, could be much easier for Hongkongers to acquire. This point was raised by a participant Kitty in the focus group interview. When asked to explain this phenomenon, she suggested that it could be easier for her to learn Mandarin when compared to English:

Although my focus is mainly on English, my score in Mandarin is surprisingly higher. Maybe it's because English is more complex and there are more things you have to learn. It could be because Mandarin is more simplistic and there are fewer things you have to learn (Kitty, focus group 1).

Table 7.3 Correlations between the self-guides and various criterion measures

	Ideal English Self	Ought-to English Self	Ideal Mandarin Self	Ought-to Mandarin Self
Intended effort in English	.68***	.47***		
English grades	.24**	.04		
Intended effort in Mandarin			.67***	.59***
Mandarin grades			.42***	.15

** $p < .01$; *** $p < .001$

7.6.3 Correlations between the Ought-to L2 Self and criterion measures

Both the English- and Mandarin-related Ought-to Selves were significantly and positively linked to learners' effort in L2 learning, although the correlations are understandably lower when compared to the Ideal L2 Selves (see Table 7.3). The correlations between Ought-to L2 Self and students' self-report effort in L2 learning reached for English and Mandarin are .47, $p < .001$ and .59, $p < .001$ respectively. This confirmed the second research hypothesis, which suggests that participants' Ought-to L2 Self plays a part in their motivated behaviour in the context of Hong Kong. The correlations found in this study are clearly stronger than the figures reported by Eid (2008, see Table 7.4 for details), Kormos and Csizér, (2008) and Csizér and Kormos (2009). The apparent disparity of results could be due to the unique culture of Chinese family characterised in East Asia, such as the high expectations from Chinese parents. For example, investigating 420 Hong Kong Chinese parents' perceptions of attributes of the ideal child, Shek and Chan (1999) have found that approximately two-thirds of the interviewees have high expectations of their children's academic performance, which include good academic scores, good attitudes towards studying and attaining high education levels.

Table 7.4 Comparing the correlations with Ought-to L2 Self with Eid's (2008)

	Present study		Eid's (2008)		
	Ought-to English Self	Ought-to Mandarin Self	Ought-to English Self	Ought-to French Self	Ought-to Italian Self
Self-report effort in L2 learning in the related language	.47**	.59**	.14	-.03	.05
Grades obtained in the related language	.04	.15	-.23*	-.15	-.04

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

7.6.4 Connections between various self-guides and the imagery-related

measures

To explore a crucial component of the present study – *imagery*, both correlations and multiple correlations were conducted to test the third hypothesis, which is the presence of a significant positive link between the learners' (a) *future L2 self images* – both the Ideal and the Ought-to L2 Selves; (b) *sensory styles* such as visual or auditory style; and (c) *imagery capacity*. The results confirmed the third hypothesis as strong correlations were obtained between future self-guides, visual style and imagery capacity (see Table 7.5). Significant correlations were identified not only with the Ideal L2 Selves, but also with the Ought-to L2 Selves. Multiple correlations revealed significant positive relationships between visual style, imagery capacity and future L2 self images, with the r ranges from .37 to .45. In line with previous research (Al-Shehri, 2008; Kim, 2009; Kim & Kim, 2011; Eid, 2008), learners' imagined visualisation is a pivotal component in learners' future L2 self-guides. The

qualitative data also confirmed the way in which imagery played a part in participant Alan's Ideal English Self. In the focus group, he commented:

When I have nothing to do, I would imagine myself speaking in English really well. Yes, there are such occasions because I'm crazily in love with English. The most common image I have is to see myself standing in front of a big group, a huge crowd of a thousand people. I would be standing on stage, speaking English very fluently. It's as if I am giving a speech (Focus group 1, Alan, in Cantonese).

Table 7.5 Correlations and multiple correlations between the self-guides and the imagery-related measures

	Ideal English Self	Ought-to English Self	Ideal Mandarin Self	Ought-to Mandarin Self
Visual style (<i>r</i>)	.40***	.38***	.36***	.31***
Imagery capacity (<i>r</i>)	.26**	.21**	.34***	.23**
Multiple correlation (<i>R</i>)	.45***	.41***	.46***	.37***

** $p < .01$; *** $p < .001$

The pivotal role of images of the self has been put forward by Stopa (2009) who has explored the effects of images on the developmental and maintenance of psychological difficulties in people. Based on the well-established links between the self and autobiographical memory (see Conway & Pleydell-Pearce, 2000, for a review), and the fact that images 'frequently accompany or represent autobiographical memories of all kinds' (p. 6), Stopa (2009) maintains that there

could be a triadic relationship between imagery, autobiographical memory and the self. An example was given of a person who may have a distorted mental image of him/herself albeit a normal appearance in reality. This distorted mental image pushes the individual to believe in the realness of his/her defected self-image. Similarly, an L2 learner's possible selves can have a real impact on one's affect, cognition, and behavior and future self-identities.

7.6.5 Adding auditory style to the analyses

Apart from identifying the visual and imagery capacity as part of the core characteristics of learners' future L2 identity, auditory style was found to contribute to both the Ideal and the Ought-to L2 Selves (see Table 7.6). This component strongly associates with the Ideal English Self ($r=.43, p<.001$), while its correlation with Ought-to Mandarin Self is the weakest ($r=.17, p<.05$).

The most promising results stem from the robust multiple correlations between visual style, auditory style, imagery capacity and the various self-guides (with r ranging from .37 with the Ought-to Mandarin Self to .52 with the Ideal English Self). Over a quarter of variance in the Ideal L2 Self is explained by the combination of the various sensory aspects. The positive contribution of the auditory style indicated that the vision of the future self involves experiencing the future state through multiple senses, not just seeing.

The importance of visual and auditory imagery can be further corroborated by findings of an experiment conducted by Eardley and Pring (2006), who explored the role of non-visual imageries in everyday cognition. In their study, visual cue words (e.g. sunset, moon), auditory cue words (e.g. thunder, bark), and low imagery abstract words (e.g. word knowledge) were used to examine their effects on

generating prospective imagery of future scenarios. It was found that people with intact eyesight have most difficulty in generating future events with abstract words. No differences in performance was found, however, when both auditory and visual words were used. This suggests that individuals can use both visual and auditory imagery to simulate future events, highlighting the role of both visual and non-visual imagery in everyday cognition. The findings in the present study may point to the same direction in that L2 learners could use both visual and auditory imagery to create L2-related future self-representations.

Table 7.6 Adding auditory style to the analyses

	Ideal English Self	Ought-to English Self	Ideal Mandarin Self	Ought-to Mandarin Self
Auditory Style (<i>r</i>)	.43***	.21**	.29***	.17*
Multiple correlation (<i>R</i>) (Visual Style, Auditory Style and Imagery Capacity)	.52***	.41***	.48***	.37***

* $p < .05$; ** $p < .01$; *** $p < .001$

7.6.6 Comparing the future self-guides across the two target languages

To examine the fourth hypothesis of whether learners have distinct language self-guides, Paired samples *t*-tests were conducted to compare: (a) the Ideal English Self and Ideal Mandarin Self, and (b) the Ought-to English Self and the Ought-to Mandarin Self. As shown in Table 7.7, the Ideal English Self ($M=3.62$, $SD=.74$) and the Ideal Mandarin Self ($M=3.38$, $SD=.81$) are significantly different ($t(171)=3.52$, $p<.01$), so are the Ought-to English Self ($M=3.67$, $SD=.79$) and the Ought-to

Mandarin Self ($M=3.01$, $SD=.74$), $t(171)=12.34$, $p<.001$). The data initially point to the existence of independent self-images associated with different target languages.

Table 7.7 Comparing the future self-guides across the two target languages: Paired samples t -tests

	<i>M</i>	<i>SD</i>	<i>Df</i>	<i>T</i>
Ideal L2 Selves			171	3.52**
Ideal English Self	3.62	.74		
Ideal Mandarin Self	3.38	.81		
Ought-to L2 Selves			171	12.34***
Ought-to English Self	3.67	.79		
Ought-to Mandarin Self	3.01	.74		

** $p < .01$; *** $p < .001$

To further confirm the distinct motivational capacity of the different selves, that is English- and Mandarin related self-guides, the correlations with criterion measures and grades in both English and Mandarin were compared. As shown in Table 7.8, the future self-guides related to the English selves contribute to the learning effort in English, whereas the ones related to Mandarin are associated with the learning effort in Mandarin. As mentioned previously, the Ought-to L2 Selves do not seem to contribute to students' academic achievement whereas the Ideal L2 Selves play a role.

Table 7.8 The distinct motivational capacity of different language selves

	Effort: English/Mandarin	Grades: English/Mandarin
Ideal English Self	.68***/.23**	.24**/.17*
Ought-to English Self	.47***/.23**	.04/.00
Ideal Mandarin Self	.22**/.67***	.14/.42***
Ought-to Mandarin Self	.21**/.59***	.05/.15

* $p < .05$; ** $p < .01$; *** $p < .001$

The findings suggest that the L2-specific future self-guides associated with different target languages are distinct. This is corroborated by a survey in which

Henry (2010, p. 160) has found tentative support that learners learning two foreign languages simultaneously may have different language selves, but added that preliminary results obtained may also suggest that separate language selves are ‘grouped together in a generic L2 working self-concept’. In a more recent enquiry, Henry (2011) has identified stronger evidence for the presence of independent L2 selves using qualitative data of four learners. It was found that in learning an L3 or L4, the English speaking/ using self-concept forms a dominant presence in the working self-concept, functioning as a reference or standard in evaluating their L3 or L4 selves. Learners’ L2 English selves therefore have a powerful impact on their L3/L4 self-concept. The quantitative method employed here further probed into this enquiry and confirmed Henry’s (2011) findings, identifying the presence of independent, different language-specific images in L2 learners.

The results in this study echoed previous research findings in that learners demonstrate a strong preference for English when compared to other L2s (Csizér & Lukács, 2010; Dörnyei & Csizér, 2002; Dörnyei, Csizér & Nemeth, 2006; Eid, 2008; Henry, 2011). The particular preference for English emphasised the attraction of English as a global lingua franca and the contextual factors in shaping their future self-concepts. In Hong Kong, English remains an important language for students who aspire to succeed in the society even over a decade since the handover of sovereignty back to China. English is a compulsory subject in the exit exams in the secondary and tertiary education systems. Undergraduates are required to attain a certain level of proficiency in the IELTS (International English Language Testing System) before graduation. Although English is not the language of conversations between Chinese Hongkongers, it remains widely used, in formal written communications (Li, 2009).

The strength of English-related future self-guides revealed in the quantitative data was confirmed by the eight focus group participants' unanimous preference for English learning. Apart from the fact that English is a lingua franca, other contextual factors, such as parents' attitudes towards the two L2, the school's emphasis on language education and students' sentiments towards the western and Chinese cultures had a great impact on the development of students' future L2 identities.

Interview data showed the influence of parents' attitudes in affecting students' perceptions towards the two second languages. As study participant Alvin put it:

I think the society expects you to be very good at both languages and pretty much everything. My parents think that I have to be very good at English. Like everyone in the society, they think you have to be excellent in both languages. But, to them, English is more important than Mandarin (Alvin, focus group 1).

Similarly, Karen also commented that:

When my relatives visited me, they would ask about my grades at school. They were most interested in my English scores. First of all, it's because I am studying in an English medium school. The first question they asked would be whether it was more difficult to study at an English medium secondary school and whether I could adapt to the environment. But they have never asked me about my Mandarin exams (Karen, focus group 1).

The immediate contextual environment, such as students' L2 learning experience and how this particular school viewed the relative importance of English and Mandarin, proved to have strong influence on the development of students' future self-guides in the two L2s. EMI schools typically put much emphasis in English and this particular school is no different. It could be said that English is seen as a major subject whereas Mandarin is viewed as a supplementary subject. During an informal conversation, a teacher informant pointed out how English was widely used in this school, which meant that students who did not attained adequate proficiency in English may suffer greatly in their studies and, in turn, could result in negative learning experiences. The subtle messages that were sent by the school regarding the relative importance of English were also picked up by students. Participants commented on how they learnt about the views of their school regarding second languages.

The student handbook may give you some hints already. It tells you the breakdown of the grades in your school report, that is, the scores for the English exams weigh four times heavier the Mandarin exam. Students just act according to the breakdown! (David, focus group 1).

Apart from the various contextual factors described above, the meanings that are attached to an English-related future self-guides play a significant role in determining the relative strength of the various self-concepts. For example, the participants associate acquiring good English with being highly admirable, competent and successful. In the focus group, David commented:

If you speak English in a nice and beautiful manner, they will think, ‘Wow! He has great pronunciation in English and his English is beautiful.’ Then, they will think that you are competent, but this is not the case for Mandarin.

(David, focus group 1)

The vision of English being more frequently used in the future also enhances the strength of their Ideal English Self. Participant Benjamin commented:

I think English will be used much more frequently than Mandarin in my future. Maybe when you are working and have to present some ideas to your boss or to other people, there will be a chance to use English. I think the chance of using English will be higher than that of Mandarin. (Benjamin, focus group 1)

However, the participants seem to have realised the growing importance of Mandarin. Participant Alvin mentioned:

I foresee that the western world will have slightly more power and better technologies than China. However, you can see that China is becoming a more powerful and emergent country, so in a few years, you will ask yourself whether English or Mandarin will be more useful in comparison. Maybe I will choose Mandarin then because China has become very strong. (Alvin, focus group 1)

Mandarin's growing importance is evidenced by the fast growing expansion of Chinese language programmes in the world (Weise, Nov 20, 2007). The strength of learners' Ideal and Ought-to Mandarin Self in the near future may grow as a result in the foreseeable future. As Li (2009, p. 76) suggests, 'being able to speak English and Putonghua/Mandarin fluently will be an important asset for anyone preparing for a professional career in the multilingual workplace'.

7.7 Conclusion and implications

This study confirmed some of Eid's (2008) results while refuting others. The findings that mirror Eid's are summarised as follows:

1. The learners have a strong preference for English learning and they have a robust Ideal English Self. Despite the strong links the English- and Mandarin-related Ideal Selves have with motivated L2 behaviour, the Ideal Mandarin Self is a stronger predictor of students' actual academic achievements than the Ideal English Self.
2. Future self-guides were found to be associated with salient imagery capacity components.
3. The future self-concepts in English and Mandarin are found to be distinct and independent: the Ideal and Ought-to L2 Selves in these two languages have unique motivational pathways in Hong Kong students' learning behaviour and academic achievements.

The findings that do not mirror Eid's are as follows:

1. Significant correlations between visual style, auditory style and future L2 self images in both Mandarin and English are identified in this study but not in Eid's (2008).
2. The Ought-to L2 Self correlates moderately with motivated L2 behaviours and academic achievements in the Chinese context, while the correlations between these factors are not significant in the Cypriot context that Eid (2008) explored.

The findings could have multiple implications: first, given a positive link between the Ideal L2 Self and learners' L2 motivation (e.g. Al-Shehri, 2009; Kim, 2009; Kim & Kim, 2011; Csizér & Kormos, 2009; Eid, 2008) and significant correlations between the multiple sensory styles, imagery modality, and the various future L2 self-guides, the motivational power of mental images is obvious. In fact, this study illustrated unprecedentedly one of the motivational pathways through which imagery/visualisation exerts its motivational powers. This echoes not only the notions that are emphasised by Markus and Nurius (1986) and Dörnyei (2005; 2009a), but also the recommendations that imagery on its own is not 'intrinsically beneficial' (see Taylor et al., 1998, for a study of depressive patients who ruminate on depressing thoughts and imagery).

Learners' sensory and imagery capacity can be viewed as internal resources to develop a more potent Ideal Language Self. It is a vital element particularly for L2 learners who lack the opportunity to interact and converse in English with native English speakers because they could still 'maintain their L2 learning motivation by constructing vivid and lively imagery of their competent, future L2 self' (Kim, 2009, p. 465). Some researchers have spearheaded in investigating the use of imagery and/or future L2 self-guides in the L2 classroom. To elicit and develop the language-

related possible selves, various classroom activities have been employed, which include using in-class visualisation, drawing an Ideal Selves Tree, writing possible L2-related scenarios, developing a timeline related to L2 possible selves (Magid, 2011; Magid & Chan, 2013), envisioning possible selves as a class, and organising a mock ten-year class reunion (Fukada et al., 2011). Some frontline teachers are already incorporating elements to help learners envision their Ideal L2 Self in the everyday speaking/listening/reading/writing tasks so that they can see how even the repetitive, controlled practice could eventually lead to competent use of the language in the future.

Another implication of the study is that it lends support to the notion that future self-concepts in various L2s are highly situated, contextual and dynamic. Each independent, distinctive future L2 self-guide could be shaped externally; the external, cultural influences could be revealed in Hong Kong learners' more prominent Ought-to L2 Self. Although the Ought-to L2 Self can serve motivational functions, parents, educators and policy makers in the Chinese context should be aware of their own influence on young people. Research has shown that a strong ought self is positively associated with anxieties in students, especially when it is linked with psychopathology (Sideridis, 2006).

The use of future self-guides, mediated by various sensory and imagery capacities, can effectively enhance L2 motivation and academic achievements. These factors could have a potentially powerful impact on thoughts, feelings, behaviors and motivation. Future research can further specify motivational pathways, incorporating factors such as cognition, emotions and behaviours in investigations. Further studies could also be conducted to identify optimal combination of the type of L2 learners

and the methods of the delivery of imaging for the best motivational impact (Sideridis, 2006).

Chapter 8

Effects of an imagery training strategy on Chinese university students' possible second language (L2) selves and learning experiences (Study III)

8.1 Introduction

The use of mental imagery is ubiquitous in human experience, from reminiscing about the past to anticipating the future. When we consciously engage in visualisation, it can improve our recall (e.g. de la Iglesia, Buceta, & Campos, 2005), enhance interview performance (e.g. Knudstrup et al., 2003), ease psychological distress (e.g. Hackmann, Bennett-Levy, & Holmes, 2011) and develop creativity (e.g. Finke, 2014). In relation to language learning, the use of imagery can improve listening comprehension (e.g. Center, Freeman, Robertson, & Outhred, 1999), vocabulary learning (e.g. Cohen, 1987; Shen, 2010; Stevick, 1986), and writing (e.g. Jampole, Mathews, & Konopak, 1994). These studies highlight the various ways in which imagery can assist learners to acquire a second language (L2).

Indeed, imagery plays an important role in human emotion, cognition and behaviour, and a line of enquiry in psychology has been conducted to explore its impact. In comparing the effects of imagery and verbal processing, studies reveal that imagery can greatly influence people's affect. For example, given various negative and neutral scenarios, participants become significantly more anxious if they imagine fearful scenarios as compared to when they listen to the same scenarios and think about their meaning (Holmes & Mathews, 2005). A similar experiment, using positive scenarios, shows that participants' positive affect increases significantly in the imagery context (Holmes, Mathews, Dalgleish, & Mackintosh,

2006).

Imagery not only influences human emotion but also cognition. When images are conjured up, goal-specific information becomes accessible in our cognitive system and, in turn, provides an impetus for action (Conway et al., 2004) and increases people's motivation in achieving target goals (Anderson, 1983). Mental simulations also have various cognitive functions, such as increasing the perceived probability of an event occurring (Anderson, Lepper, & Ross, 1980) and checking the viability of plans (Taylor & Schneider, 1989).

Finally, imagery's powerful effects on behaviour have also been supported in various studies. For example, Martin and Hall (1995) demonstrate the effect of imagery on beginner golfers' motivation to practise a golf-putting task. The main findings were that the imagery group visualising positive performance spent the longest period of time practising golf putting of their own accord. Another study conducted by Knäuper et al. (2009) found that mental imagery can enhance motivation, that is, participants who were asked to employ perform mental imagery of the task were significantly more likely to complete the task than those who did not use imagery.

8.2 Possible selves

Mental imagery has a close connection with another construct in psychology known as *possible selves*, which consists of cognitive components representing individuals' ideas of 'what they might become, what they would like to become, and what they are afraid of becoming' (Markus & Nurius, 1986, p. 964). Similar to imagery, possible selves relates to cognitions and emotions. They are manifested as goals,

aspirations, motives, fears and threats and can symbolise a variety of positive future self-constructs contextualised in different settings, such as the agile self in sport, the successful self at work or the confident self at a party. Alternatively, possible selves can also include feared selves, such as the unpopular self, the lonely self or the unemployed self. According to the seminal paper written by American psychologists Hazel Markus and Paula Nurius (1986) who introduced the concept, possible selves contain the following key characteristics: (a) they are intricately intertwined with one's present and past selves; (b) they are highly personalised and socialised, defined by individual contexts as well as social comparisons; and (c) they are more unstable and sensitive to changes in the environment, especially when compared to one's present or past selves that are anchored in one's experiences and memories. Possible selves also vary in the amount of cognitive and affective elaborations, in that there is a graded continuum as to how intricate and detailed a possible self can become.

Possible selves can powerfully exert motivation as the constructs are said to have 'incentives for future behaviours' (Markus & Nurius, 1986, p. 954). Possible selves not only provide a context for people to evaluate and interpret the current selves, they also possess self-regulatory effects if linked with specific roadmaps and behavioural strategies, and are therefore known as 'self-regulatory possible selves' (Hoyle & Sherrill, 2006, p. 1677). The motivational effects can be exercised when a possible self is recruited and activated in the working self-concept. Likewise, a future self-guide which is not activated in one's working self-concept does not have an impact on one's current self and subsequent behaviours (Markus & Nurius, 1986).

8.3 The L2 Motivational Self System

The theory of possible selves has influenced research in L2 motivation with the inception of a motivation theory known as *The L2 Motivational Self System* developed by Zoltán Dörnyei (2005, 2009a). The proposed framework includes three major components: (a) the Ideal L2 Self, which is the L2-related facet of one's ideal self; (b) the Ought-to L2 Self, which relates to the L2-specific traits that a person believes he or she ought to possess; and (c) the L2 Learning Experience, which is motivation related to the immediate learning environment and experience (e.g., the positive rapport built in the classroom and learners' dynamics). Studies conducted over the past few years have converged in confirming the validity of Dörnyei's framework, supporting the Ideal L2 Self as a substantive predictor and determiner of motivated L2 behaviour (e.g., Csizér & Kormos, 2009; Csizér & Lukács, 2010; Kormos, Kiddle, & Csizér, 2011; Papi, 2010; Taguchi et al., 2009). Interestingly, recent studies have confirmed that learners' Ideal L2 Selves are positively associated with both visual and auditory components of imagery (Dörnyei & Chan, 2013; Kim, 2009; Kim & Kim, 2011), and the Ideal L2 Selves are not only positively correlated with learners' intended effort but their actual grades (Dörnyei & Chan, 2013). These results suggest that imagery plays a key role in the development of future self-guides, and that learners with a vivid L2 self-image, in which imagery is an integral component, are more likely to be motivated and to take actions in language learning.

8.4 The use of imagery and possible selves in learning

From a practical point of view, language educators are most interested in how they can use imagery and possible selves in the L2 classroom. As Ruvolo and Markus

(1992) suggest, one's possible selves can generate feelings of efficacy, competence, control, and optimism which would then provide an impact on behaviour. However, it is unlikely that learners' ideal selves could be constructed and developed from scratch. It would be more realistic to raise learners' awareness about their past achievements, their own strengths and weaknesses when envisioning future aspirations (Dörnyei, 2009a).

Such endeavours have been made by researchers who conducted possible selves programmes to enhance student motivation in the academic arena. For example, Hock et al. (2006) have guided students to contemplate their hopes, expectations and fears for the future in a programme in which students were prompted to reflect on their future roles and create a Possible Selves Tree, a drawing that represents one's hoped-for and expected selves. It was found that the use of possible selves resulted in higher academic performance, higher retention rates and higher graduation rates for university student-athletes than for those in the control group. A number of other studies have also explored the effects of possible selves interventions on students' general academic achievements (e.g., Oyserman et al., 2006; Oyserman, Terry, & Bybee, 2002; Sheldon & Lyubomirsky, 2006) and the results have shown that such enhancement programmes could enhance learners' future identities and their motivation in learning.

In recent years, L2-specific intervention programmes have been conducted with the aim of enhancing learners' future identities and L2 motivation (Fukada et al., 2010; Magid, 2011; Sampson, 2012). Evidence suggests that helping students to develop and strengthen their Ideal L2 Self may have a positive impact on their L2 motivation. Despite the initial interest, however, relatively few studies have used both imagery and possible selves in a compulsory, credit-bearing university language

course, or have examined the specific changes in participants' L2-specific future identities within the context of an intervention. The purpose of this paper is to investigate the impact of an imagery intervention on the students' Ideal and Feared L2 Selves, and to explore the students' responses to the intervention in the context of autonomous L2 learning.

8.5 Research aims

This study aims to explore the impact of an imagery training strategy (which incorporates the use of visualisation exercises, the creation of an Ideal Selves Tree, and language counselling) on university students' possible L2 selves and their learning experiences. The main research questions are as follows:

1. How do students' possible L2 selves – that is, their Ideal L2 Self and Feared L2 Self – change as a result of the imagery training strategy?
2. How do students respond to the three intervention components utilised in the study, namely: visualisation exercises, the creation of an Ideal Selves Tree and language counselling?

8.6 Methods

8.6.1 Participants

Eighty second-year Chinese university science students (50 males and 30 females) participated in the study in a mid-sized, English-medium university in Hong Kong. These students were advanced English learners with language proficiencies ranging from high intermediate to advanced level. They ranged in age from 20 to 23 with a mean age of 21.

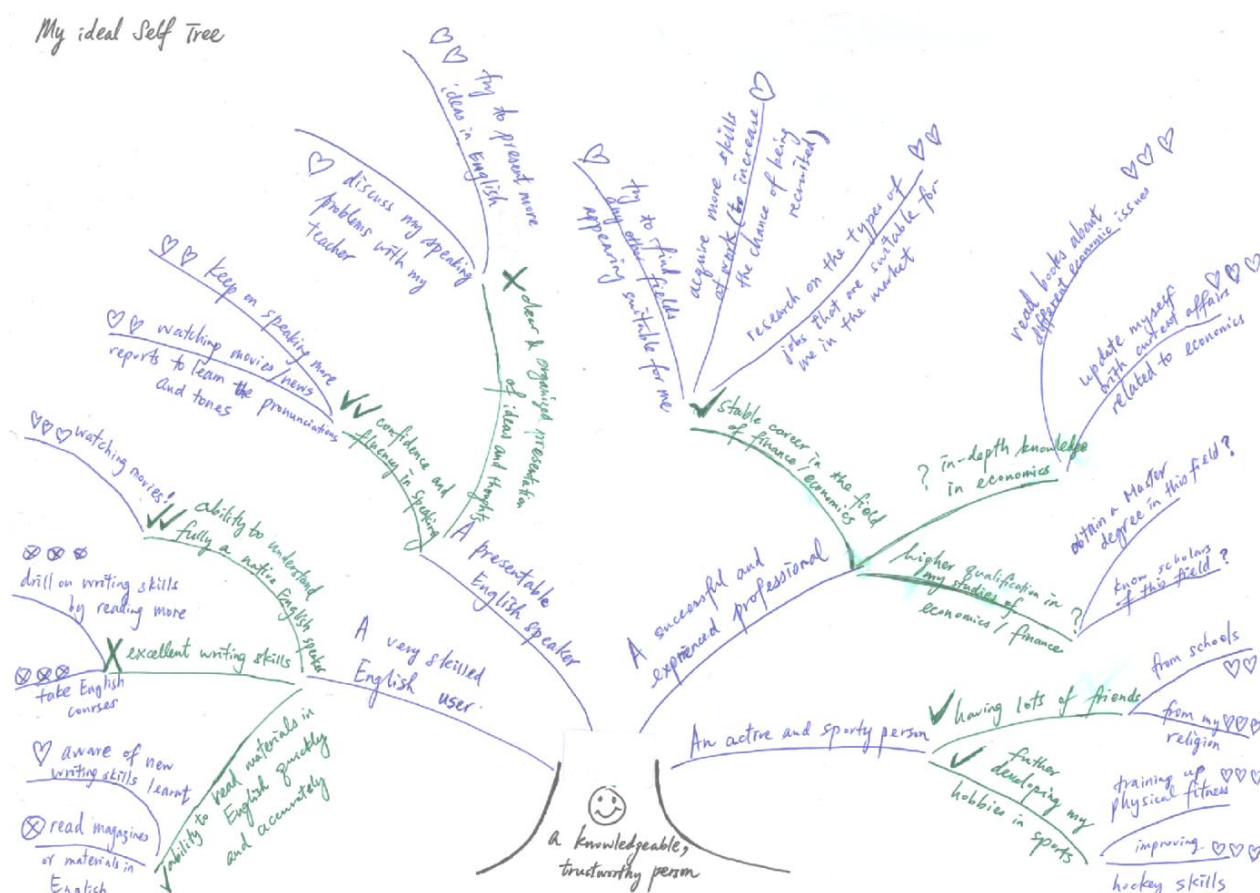
8.6.2 Possible selves intervention

This study was conducted as part of a 12-week compulsory university English course in spring 2010, which aimed to develop autonomous language learners through a self-access language learning (SALL) component. As students had to learn English independently in the course, the goals were to help students create a vision of their Ideal L2 Self and to chart their progress throughout the course.

At the beginning of the course, students were introduced to the concept of the ideal self and how visualising their successful future selves could enhance their motivation in learning. Students were then asked to draw an Ideal Selves Tree⁸ with stems envisioning (a) the ideal L2 learners they would like to become in the future, (b) their ideal self-guide as a worker and the use of English in their future workplace, and (c) their ideal selves in personal arenas. Students were also asked to draw smaller branches growing from the stems to indicate their action plans. Figure 8.1 shows a tree that was drawn by a student.

⁸ The activity was adapted from the Possible Selves Intervention conducted by Hock et al. (2006).

Figure 8.1 Sample of a student's Ideal Selves Tree



In addition, four visualisation exercises were conducted in class, which took place in the last ten minutes of class when the lights were dimmed and students were asked to close their eyes when imagining situations in which they felt confident using English. In the first practice task, students were familiarised with this technique by looking at two pictures on the screen and recalling the images in their mind. In the remaining three sessions, learners were asked to visualise a scenario where they felt confident in their use of English. The teacher did not use a particular script, but prompted students by using a few guidelines (see Table 1). Learners were encouraged to talk about their experience in as much detail as possible afterwards.

Table 8.1 Imagery script

I would like you to close your eyes. This is a time for you to relax and to think about some positive experience that can happen in your life. This is a time to nurture yourself and to build a positive experience in your mind. I would like you take a deep breath and exhale slowly.

I would like you to come to this place where you will have a positive experience using English. This can be anything you want it to be. You could be giving an English presentation confidently in a classroom. You could be chatting with a friend in English fluently; you could be writing an essay in English. You are feeling very confident and this is a happy moment. Enjoy this moment. Try to look around you. What can you see? Try to take a close look at everything around you, the people and the surroundings. Take a close look at the people and their response. Try to listen to what they are saying to you. They are very happy with you. Try to enjoy this positive feeling in you. I will now give you some time to enjoy this moment. Try to see, hear and feel this moment.

I will now count to three. When I do so, you will be back to the present and you can open your eyes. One, two, three.

Finally, there were two 20-minute language counselling sessions incorporated in the intervention in which it was arranged for students to meet the teacher researcher in pairs. The aim was to help students envision who they could be

as an English user, raise their awareness of their learning attitudes and set concrete learning goals.

8.6.3 Data collection

Pre- and post-course questionnaires that measured the strength of the participants' vision of their possible L2 selves were administered during Week One and Week Twelve of the course. The items were taken from an established motivation inventory in Ryan (2009), and questions concerning students' evaluations of the intervention were included in the second survey (see Appendix E).

Qualitative data were collected during the three phases in the second week, the tenth week and two months after the course had finished. Table 8.2 summarises the details of each phase of the qualitative data collection.

Table 8.2 Information on the three phases of the qualitative data collection

	Time of data collection	No. of informants
Time 1	2 nd week of the course	23 (13 males & 10 females)
Time 2	10 th week of the course	15 (8 males & 7 females)
Time 3	2 months after the course	14 (8 males & 6 females)

Interview questions drawn from Ryan (2009) were used to investigate students' Ideal and Feared L2 Selves at Time 1 and Time 2; students' views of the intervention components were explored at Time 3 (see Appendix F for interview questions). Data collection at Time 1 and Time 2 was conducted in English whereas the interviews at Time 3 were conducted in either Cantonese (the participants' first language) or in English.

8.6.4 Ethical procedures

To protect the students' rights in this research study especially because it was related to a credit-bearing course, strong measures were implemented to ensure appropriate ethical conduct. This was mainly to avoid a conflict of interests as the teacher researcher also had the role of evaluating participants' work which would eventually lead to a final grade for the course. In this case, although the teacher researcher taught the classes, the recruitment of participants and the administration of data collection in the first and second phases were undertaken by a separate data collector. The recruitment for the final interview was carried out via the post-course survey and students who indicated an interest were contacted after the course had finished. Pseudonyms were also employed in the report.

8.6.5 Data analysis

Data from the pre- and post-course questionnaires were processed by SPSS version 18.0 using parametric Paired samples t-tests to explore whether there were statistical differences in students' Ideal and Feared L2 Selves. Content analyses of the nearly 71,000-word corpus of interview data were carried out using NVivo 8.0. The researcher first read through the transcriptions identifying the emerging themes and then the text was coded into categories, such as the Ideal L2 Selves, the Feared L2 Selves, visualisation and evaluation of the intervention.

8.7 Results

8.7.1 Quantitative analyses of students' Ideal and Feared L2 Selves

Internal consistency reliability

Table 3 shows the Cronbach's alpha reliability coefficients for the two multi-item scales: Ideal L2 Self and Feared L2 Self. The reliability coefficient for both scales are above or close to the recommended .70 threshold, which suggests that there is a display of homogeneity among the items of the two composite factors.

Table 8.3 Cronbach's alpha coefficient for the multi-item scales

Variables	Cronbach's alpha	Questionnaire items
Ideal L2 Self	.73	<ul style="list-style-type: none">- I have a role model to look up to as an ideal English user.- I imagine/visualise myself being someone who can communicate with others fluently in English.- I imagine/visualise myself being someone who is a good English writer.- I imagine/visualise myself reading English texts effectively.
Feared L2 Self	.64	<ul style="list-style-type: none">- I am scared that my English standard will decline.- Because I have experienced some embarrassing situations when I have used English, I feel more motivated to improve the language.- The fear of losing my knowledge of English motivates me to keep on studying the language.- I worry about the consequences of not becoming the English user I would like to be.

8.7.2 Quantitative changes of students' Ideal and Feared L2 Selves

Paired-samples t-tests were conducted to evaluate the impact of the intervention on students' Ideal and Feared L2 Selves (see Table 8.4). The results showed that students' Ideal L2 Self increased but their Feared L2 Self did not change significantly as a result of the imagery intervention.

Table 8.4 Comparing the quantitative temporal changes in learners' future self-guides: Paired samples *t*-tests

	<i>M</i>	<i>SD</i>	<i>D</i>	<i>t</i>	Effect size ¹
Pre Ideal L2 Selves	3.86	.82	79	-2.65*	0.08
Post Ideal L2 Selves	4.16	.76			
Pre Feared L2 Selves	4.32	.79	79	-.01	0.00
Post Feared L2 Selves	4.17	.70			

**p*<0.01.

¹Eta squared

8.7.3 The change to the various facets of Possible L2 Selves

To measure the change to students' possible L2 selves in the intervention, three coding categories⁹ were employed, namely: (a) *emergent* (i.e., selves which were not present at Time 1 but present at Time 2), (b) *fading* (i.e., selves which were present at Time 1 but not at Time 2), and (c) *stable* (i.e., selves which were present both at Time 1 and Time 2). The qualitative data were categorised by domains (e.g. Listening versus Speaking Self) as well as by the nuance differences in contexts (e.g. academic versus work) shown in informants' responses. Table 5 presents an overview of the development of informants' possible L2 selves.

⁹ The categories were adapted from the study conducted by Frazier, Hooker, Johnson, and Kaus (2000).

Table 8.5 Frequencies in the direction of change in various facets of possible L2 selves

Emergent L2 Selves	Fading L2 Selves	Stable L2 Selves
Ideal Speaking Self (7/14)	Feared Speaking Self (3/14)	Ideal Speaking Self (6/14)
Ideal Writing Self (3/14)	Ideal Listening Self (5/14)	Feared Speaking Self (4/14)
Feared Speaking Self (3/14)	Feared Writing Self (1/14)	Feared Reading Self (1/14)
Feared Writing Self (2/14)	Feared Reading Self (1/14)	General Feared L2 Self (2/14)
General Feared L2 Self (1/14)		
<i>n</i> =14		

The qualitative data revealed five facets of possible L2 selves which were categorised as the ‘emergent possible selves’ and the most notable emerging self was the Ideal Speaking Self with half of the participants having an emergent change in this facet. This could be because the course had a heavy speaking component and students were also encouraged to envisage the Ideal Speaking Self both in the creation of the Ideal Selves Tree and in the visualisation exercises. A positive change in the emergent Ideal Speaking Self could be seen particularly in four of these students whose ideal future self-guides became more specific towards the end of the intervention. For example, Jade who did not have an idea of her Ideal L2 Self at Time 1 gradually developed a concrete, established Ideal L2 Self at Time 2:

I guess it would still be the imagery I did in class. In my imagination, I was doing a presentation introducing something to an audience. I was just talking or explaining. It motivated me because this could be a job I would like to do in the future. This is what I expect myself to be. And to achieve that, I would try my best to learn English... hard. (Time 2, focus group 1)

Similarly, the Ideal L2 Self of three other students became more specific, and their future self-guides changed from having general attributes (e.g., someone who speaks fluently) to acquiring a specific role model. In John's own words:

I have a vision which is job- or career-related. I have a role model who is one of my seniors. His English and accent is not so good, but he can speak fluently during an interview or can communicate with other foreign exchange students. (Time 2, focus group 4)

In the category of the 'fading possible L2 selves', apart from witnessing a diminishing Ideal Listening Self, the feared selves related to speaking, writing and reading were also weakening towards the end of the course. This was shown in participant Betty, who mentioned that she was scared of having daily conversations in English at Time 1, but this fear diminished at Time 2.

Yes, in fact, I know that I cannot speak as well as a foreigner, but I just imagine that I can speak like him. For the fear, I just want to try my best. So I really am not afraid. There's no fear. (Time 2, focus group 4)

Finally, four facets of possible L2 selves remained stable, namely: the Ideal Speaking Self, the Feared Speaking Self, the Feared Reading Self, and the General Feared L2 Self with more informants demonstrating stability in the Speaking L2 Self.

8.7.4 Participants' evaluation of the intervention components

Visualisation

Approximately two-thirds of the students found the in-class visualisation exercises useful with 68.8% rated 4 or above in the usefulness of visualisation. For the survey item 'The in-class visualisation practice was useful', descriptive data shows a mean score of 3.98 out of 6 (SD=1.09; n=80) in students' evaluations.

Many informants found the in-class visualisations a pleasant and relaxing experience, especially for those who understood the rationale behind and for those who were already practising the use of visualisation. This was true for Adam who appreciated the use of imagery:

For me, I think visualisation has its potential because it is a kind of self-motivation exercise. I read a book years ago about this technique and in the past I visualised quite often. (Time 3, focus group 1)

This was the same for Jade who suggested that visualisation motivated her to learn English:

Interviewer: Do you think the visualisation exercises helped you with the SALL component?

Jade: Yes, it did help because I gained more confidence to chat with other foreigners or students from other countries.

Interviewer: Did it help you to try to create more opportunities to talk to others?

Jade: Yeah. Yeah.

Interviewer: It did?

Jade: Yeah. I did grab the chance to talk to the students from other countries or the exchange students. (Time 3, interview 3)

Although some students found the visualisation exercises motivating, it appeared that the positive impact was sustained only for a short period of time and the motivation gradually declined after the initial boost, which was commented on by Phil:

I have an image in my mind. After that day, I have more motivation. That only lasted for a few days. After those few days, I returned to normal. It gave me confidence because if I dream that I am a successful guy, I have more confidence. As I said before, it gave me a goal. (Time 3, focus group 2)

The effectiveness of visualisation also depended on the students' ability to visualise. Learners in this study found it relatively easy to visualise in general and tended to find it effortless to reconstruct actual scenarios that had occurred, as mentioned by Jackson:

I think... it's easy because I have encountered such a scenario before. I just recall it from my memory. (Time 3, interview 4)

However, there were a minority of students who found it difficult to visualise, especially influenced by the time of the day in which the visualisation was conducted. In Sam's words:

As my class is in the late afternoon, doing visualisation is very difficult. We are very tired and our brain is in a traffic jam. (Time 3, focus group 2)

Ideal Selves Tree

The Ideal Selves Tree seemed to be moderately effective in motivating students in SALL and the descriptive data showed a mean score of 3.71 out of the six-point Likert scale for the survey item ‘The Ideal Selves Tree helped me to be more motivated in SALL’ (SD=1.12; n=80). 60.3% of the students rated four or above in the Likert scale for this item.

Among the fourteen informants, seven of them found the task helpful in shaping their goals as the schematic representation in the Ideal Selves Tree helped them to envision their future and it also acted as a reminder, which was the case for James:

I seldom set goals for myself. I do have a final goal, but I don’t come up with some short-term goals. As I imagine those situations, I have some motivation to work harder and to improve my English. It keeps reminding me of what I have to do when I come across the Ideal Selves Tree on my desk. I remember what I have drawn. (Time 3, interview 5)

Filling the SALL record was a compulsory task for students which would be submitted at the end of the course, but Zac suggested that there were additional benefits of using the Ideal Selves Tree:

[The Ideal Selves Tree] helps me to think about the whole thing more systematically. There are some lines connecting ideas, which is similar to a mind-map. With the SALL record, it's perhaps just words on separate pages. It's more difficult for me to see the connections. (Time 3, focus group 2)

Language counselling sessions

Many students found the language counselling motivating with 81.3% of students rating it 4 or above on the Likert scale. The mean score obtained for the item 'The two language counselling sessions motivated me to do SALL' is 4.22 out of a six-point Likert scale (SD=1.03; n=80).

From the qualitative data, eight students found the counselling sessions helpful. The two language counselling sessions served various purposes for these students: While some learners felt the pressure to present their learning goals and to report their progress in these sessions, others saw it as an opportunity to build rapport with the teacher, a chance for both the students and the teacher to become more familiar with one another. The sessions were also opportunities for learners to be challenged, to reflect upon their independent L2 learning, and to refine their goals, which was the case for Dana:

I think it was quite good. When you saw the tree, you asked me some challenging questions. When I went back home, I thought about that point and agreed that the goals didn't really match what I had in mind. (Time 3, focus group 2)

8.8 Discussion

The intervention strategy can be considered moderately successful as its impact was strong in many ways but less pronounced in others. It was successful in significantly enhancing the strength of the participants' Ideal L2 Self, which meant that the students had a stronger and more positive future L2-related identity towards the end of the intervention. This suggested that the participants could better visualise themselves as someone who could communicate with others fluently in English, someone who would be a good English writer and who could read English texts effectively as shown in the questionnaire items. The Ideal L2 Selves of some students also became more specific and were extended to different contexts (e.g., at a work-related context) as indicated by the qualitative data.

Encouraging comments were received for all the three core intervention components. The participants found it constructive to present their learning goals and to report their progress in independent learning during the language counselling sessions. The instructor was seen as a mentor, helping students evaluate their own progress, reflect upon their learning, and refine their goals. Any misconceptions regarding learners' perceptions of visualisation were also clarified. More importantly, it was encouragement and support given to the students as well as the rapport built that was valued by the informants. The findings echo Voller's (1997) assertion that teachers can be seen as facilitators, counsellors and resources in an autonomy-centred classroom.

Regarding the Ideal Selves Tree, the task created the time and space for students to reflect upon their intended actions for goal achievement. It helped students to construct and record who they would like to be in the future, and it also

acted as a reminder for them. It was particularly helpful for learners who were serious about setting realistic goals.

As for the in-class visualisation exercises, the strength and effectiveness of imagery was influenced by various factors, namely the imagery generating abilities, the number of visualisation exercises used, the time of day of the class and whether learners understood and identified with the benefits of the technique. Drawing from the students' experience in using imagery in this study and from other research findings, issues pertaining to the practicality of using mental imagery in the classrooms will be further delineated in the next section.

The intervention was also successful in developing and maintaining the students' L2 Speaking Self, which was the most stable and emerging construct with ten out of fourteen informants mentioning either a Feared/Ideal Speaking Self at Time 1 and Time 2 respectively. In fact, it was the most significant self-construct with all fourteen informants mentioning it at some point in time. When students envisioned their L2 Speaking Self, they were searching for role models. Many students used native English speakers, foreigners, or locals who sound like foreigners as benchmarks; and evaluated who they would like to become accordingly. The emergence of a prominent L2 Speaking Self may have developed among the students because they were encouraged to imagine various oral-related scenarios in the visualisation exercises, including giving oral presentations and chatting with native speakers, which could have encouraged a more prominent L2 Speaking Self. It could also be due to the nature of the course, which aimed to develop students' oral proficiency by providing oral discussions in most lessons.

Although the intervention was successful in the aforementioned areas, the results revealed less of an impact on alleviating the strength of the students' Feared

L2 Self. The fear-related future self-guides remained relatively strong (i.e. in the range of 4 on a six-point Likert scale) in the post-course survey. This could be because the intervention focused on enhancing the students' Ideal L2 Self without aiming to specifically alleviate the Feared L2 Self. The period in which the intervention was conducted (i.e. at the end of their second year) could also play a role since the pressure of preparing for examinations, end-of-term assignments, summer internship applications and interviews, as mentioned by some participants, could have evoked or maintained the Feared L2 Self. Although the Feared L2 Self can offset the Ideal L2 Self (Dörnyei & Ushioda, 2011), the ramifications of having an intensified Feared L2 Self could lead to an increase in L2 anxiety and debilitate students' L2 learning (Papi, 2010). The presence of fear or anxiety in L2 learning has been noted in Chinese students (e.g. Tsui, 1996; Zhang & Head, 2010), which could be related to the generally low levels of self-esteem found in Hong Kong Chinese children (as compared to Chinese and Caucasian children who live in Britain), resulting from the pressurising educational environment and cultural values in Chinese society (Y. M. Chan, 2000).

8.9 Lessons from the intervention

Lesson 1: Students' readiness to visualise in class

From the feedback received, most participants welcomed the opportunity to visualise in class, even those with relatively poor imagery generating ability, but some students displayed scepticism about the use of imagery as a motivational strategy in language learning. It is therefore important for students to understand both the benefits and the process of imagery use. In addition, teachers can explain to students

some theoretical materials and scientific evidence that support imagery use (Sargent, 1996). Simple guided imagery exercise can also be tried out in the introductory sessions.

Lesson 2: Environment

To achieve the best results, it is vital to provide a safe, comfortable and quiet environment for the participants (Glouberman, 1989). Various factors such as temperature, noise level, and the time of the day will affect imagery. Participants could be asked to sit in a comfortable way, for example with their legs uncrossed and arms unfolded. They could also remove their glasses and have their eyes closed.

Lesson 3: Contents of visualisation

Since some informants commented on the differences between realising the Ideal L2 Self in the near future (e.g. someone who is learning autonomously on a daily basis) as compared to attaining the Ideal L2 Self in the distant future (e.g. joining an exchange programme), practitioners may consider informing participants of the effects of the different psychological temporal dimensions in imagery production.

Research has found that a goal may exert more motivational impact if it is considered to be more ‘psychologically imminent rather than remote’ (Perunovic & Wilson, 2009, p. 356). Seeing proximal future success can also instigate a confidence boost in the current self (Wilson et al., 2007; cited in Perunovic & Wilson, 2009). Therefore, conducting mental simulations with one’s proximal future self may have a more positive influence on students’ motivation and choice of decision.

Participants can consider using their autobiographical memory as a basis for their visualisation by reconstructing their past experiences and creating new ones.

This was the experience of some participants who modified the unsuccessful experience with slight modifications into a successful one. Even visualising unhappy moments and evoking some strong emotions could act as a reminder of a person's Feared L2 Self, which can then offset his or her Ideal L2 Self (Dörnyei & Ushioda, 2011).

Lesson 4: Frequency of visualisations

A few informants mentioned the short-lived duration of the motivational effects of visualisations, which coincides with a research finding that suggests that the effects of imagination on personal intention persist at least over a 3-day period (Anderson, 1983). In order to prolong the motivational effects and keep the vision alive, participants can be encouraged to use visualisation by producing personalised imagery scripts and recordings to be used outside class. These can be used on a regular basis, preferably within a 3-day timeframe.

Lesson 5: Language counselling session

As suggested by some students, an individual visualisation exercise can be conducted in the language counselling sessions to help students to further create, clarify and develop their Ideal L2 Selves.

Lesson 6: Ideal Selves Tree

Regarding the Ideal Selves Tree, the success of the task depended on the students' view of the possibility and feasibility of achieving the goals they set for themselves. This is in line with Markus and Nurius (1986) who suggest that the ideal selves should be possible. In order for students to find the task useful, it is vital for them to

be specific as to what they could achieve within a particular timeframe. It is also important for the diagram to be placed in a prominent place in order to remind them of their goals.

8.10 Conclusion

In summary, the present study has provided interesting insights into the way an imagery strategy exerted a positive impact on students' possible L2 selves and learning experiences. The intervention significantly increased the learners' Ideal L2 Self although the Feared L2 Self remained relatively stable. The results also revealed that different facets of possible L2 selves showed stability and changes in the intervention. Most of all, the study demonstrates how imagery, when used appropriately, has the potential to be an effective tool in motivating L2 learners and a powerful reminder of future goals.

Chapter 9

Christian Language Professionals (CLPs) and Integrated Vision: The Stories of Four Educators (Study IV)

9.1 Introduction

The word *vision* is an inspiring, compelling, and powerful term for many, but it is also said to be ‘one of the most overused and least understood words in the language’ (Collins & Porras, 1996, p. 66). Individuals with visions are driven by a strong sense of purpose, a mission that extends beyond their personal wellbeing. There is a vocational calling, sheer determination, and passion that energise them. This study contextualises the development of personal vision within *Possible Selves Theory* proposed by Markus and Nurius (1986). Possible selves are self-constructs that involve people’s images of their future selves. In particular, I will focus on the constructs of the *Ideal Self* (i.e. the self an individual would like to become) and the *Ought-to Self* (i.e. the self one thinks he/she should become) in Christian and professional realms, and examine how four seasoned Christian Language Professionals (CLPs) develop assimilated personal visions.

I will also draw on *Dynamic Systems Theory* – an emerging approach to studying non-linear, complex, and dynamic patterns in a system – in order to illustrate the process of self integration. The results reveal several distinct patterns of integration in this respect, underscoring the fact that the construction of an integrated CLP Self is situated in a complex dynamic self system that involves multiple interactions between factors such as internal resources (e.g. one’s ideal and ought-to

selves, strong Christian values, clear purpose in life), one's life choices and actions taken, and external circumstances.

9.2 Vision

Vision has been construed differently in different contexts, but *personal vision* in this study is associated with several key characteristics: it is visual, motivational, ideological, future-oriented, emotionally-charged, and value-laden. The term vision originally meant 'something seen in the imagination or in the supernatural' (Harper, 2010). A current definition provided by the Oxford Dictionary describes it as 'the ability to think about or plan the future with imagination' or 'wisdom or a mental image of what the future will or could be like.' In a theoretical article on vision, van der Helm (2009) has identified seven versions of visions, ranging from humanistic vision, religious vision, political vision, and business or organisational vision, to community vision, policy support vision, and personal vision. Three aspects in particular have been identified as central to vision: 'the future, the ideal, and the desire for deliberate change' (p. 99). More specifically, personal vision is defined as vision which 'emerges or is developed within personal development projects' and it has 'much to do with giving meaning to one's life, with helping to make shifts in professional careers and with coaching [oneself] in realising a personal dream' (p. 98).

On another level, personal vision has been construed within the concept of goal hierarchies, which interprets it as a higher-order, distal goal that has the function of 'instilling purpose' and '[moving] people towards a meaningful destination' (Masuda, Kane, Shoptaugh, & Minor, 2010, p. 222). It is seen as a target

in the *distant future* rather than a proximal goal. A vision can be made more compelling by connecting it with strong values and vivid imagery. Masuda and her colleagues have found that students who have a more challenging and specific personal vision set more difficult goals for their studies and show more commitment and effort to attain their goals.

The importance of having a vivid vision has also been endorsed by Collins and Porras (1996) in their discussion of successful companies. They contend that vision is composed of two major components, *envisioned future* and *core ideology*. The key to constructing an envisioned future is to create a *vivid description* of what the future means, along with defining bold, vision-level goals. This futuristic description should arouse one's *passion, emotion, and conviction*. Core ideology, another indispensable component of one's vision, incorporates intrinsic *core values* and *core purpose* as building blocks. Core values are fundamental to successful organisations; for example, a deeply held value of the computer giant HP (Hewlett Packard) is respect for the individual, a stance which has contributed to the company's great success. Visionary companies are said to have held onto their core values as an 'almost religious tenet' (p. 66). Also, having a core purpose is vital in developing one's ideology. A core purpose is different from goals or strategies in the sense that it should 'capture what you stand for and why you exist' (p. 73).

9.3 Possible selves theory

In this study, personal vision is examined within the concept of *possible selves*, which was originally introduced by Markus and Nurius (1986). It is one of the prime theories investigating future identities and vision, maintaining that possible selves

are mental representations of one's hypothetical selves in the future. They are 'visions of the self in a future state' (Oyserman & James, 2009, p. 373). These are selves that individuals would very much like to become, selves they could become, and selves they are afraid of becoming. Although these constructs are future-oriented, they are intertwined with the past and current selves, and they are derived from and reflect one's past experiences. Possible selves can influence behavior when a person compares his/her current self and a future possible self, highlighting the discrepancies between the two. This discrepancy can elicit negative affect which is then translated into action to reduce the gap so as to achieve the desired state (Carver & Scheier, 1990; Higgins, 1987). Individuals with a distinct image of their future selves have a higher awareness of the cues related to the goal-attaining behaviors and engage in desirable actions. Therefore, these future selves have motivational implications because they 'provide meaning for the individual's current behavior' (Hoyle & Sherrill, 2006, p. 955). Possible selves, with the Ideal Self in particular, are closely associated with vision based on the common characteristics underlying both constructs: both involve ideal, motivational, and future-oriented images.

Vision is also connected with future L2 self-guides in the *L2 Motivational Self System* developed by Dörnyei (2005, 2009a), which is the language-related adaptation of Possible Selves Theory. This relatively new approach suggests that there are three main factors determining the motivation of L2 learners: the *Ideal L2 Self*, the *Ought-to L2 Self*, and the *L2 Learning Experience*. The first two components refer to the L2 facets of possible selves and are linked with vision and imagery: an example of the Ideal L2 Self would be a wished-for future self-image of someone as a speaker who is proficient in the target language and can thereby

confidently speak and write in different contexts; the Ought-to L2 Self, on the other hand, is the representation which people believe that others want them to approximate – that is, they feel that they are expected to live up to the expectations set by others. The third component of the system, the L2 Learning Experience, is associated with the immediate L2 learning environment of a student which could include the relationship with a teacher, the teacher's teaching style, and classroom dynamics, among other factors.

9.4 Christian faith and English language teaching (ELT)

One of the key questions in this study is to explore whether seasoned CLPs integrate their Christian and Language Professional (LP) Selves. These individuals may have clear, independent identities in both their Christian and professional realms, but do they also have an *integrated* self as a CLP? Do they have a vision not only as a Christian or as a Language Professional, but also as a CLP? In recent years, we have seen an emerging research interest in the connection between Christianity and ELT. Researchers have recognised a strong worldwide presence of evangelical Christians in this field, who have been characterised as 'moral agents on learners' (Varghese & Johnston, 2007). Past research has looked at how one's faith influences educators in their profession (Wong & Canagarajah, 2009; Craft, Foubert, & Lane, 2011; Lindholm, 2007). Researchers have found that the actions taken in the professional lives of these people reflect who they are and what they believe. Several studies examining both preservice and in-service Christian professionals in North America have identified similar themes in their findings (e.g. Varghese & Johnston, 2007; Hong, 2008), pointing to the conclusion that one's Christian beliefs and teaching

practice are closely intertwined as the teachers' faith informs and shapes them both inside and outside the classroom. For these committed evangelical teachers, Christ serves as a role model. They express a desire to be Christlike, see Jesus as the center of their life, and rely on the Bible as the Word of God. A consequence of this stance is that they view teaching as Christian service. For a detailed overview of this area, see a recent anthology by Wong and Canagarajah (2009), which covers a wide range of topics related to CLP identities, including being a non-native Christian English teacher (Liang, 2009) and the identities of missionary English teachers (Wong, 2009).

9.5 Dynamic systems theory (DST)

To examine the integration of the Ideal CLP Self and the development of vision, it seems appropriate to draw on Dynamic Systems Theory (DST) to capture the complexity of the phenomena in question. Prominent figures in the field of applied linguistics (e.g. Diane Larsen-Freeman, Nick Ellis, Kees de Bot, and Zoltán Dörnyei) have recently argued for the relevance of DST in second language acquisition, portraying it as a potential overarching theory of language development because of its ability to make sense of the non-linear, messy data that is common in the field. DST holds the view that the phenomena we see in the world can be understood as the outcomes of dynamic systems which are nested: 'Every system is always a part of another system' (de Bot et al., 2007, p. 8). Within the various systems, multiple interconnected components are influencing one another, generating seemingly unpredictable patterns and changes due to their complex interactions (de Bot et al., 2007). Unpredictability in a system is evident in that it is highly dependent

on an initial state. A new and emergent state can sometimes be produced with slight input, whereas at other times the system can absorb intense perturbation without much change. These characteristics are explained by what is known as *self-organisation*, which is ‘the spontaneous formation of patterns in open, non-equilibrium systems’ (Kelso, 1995; cited in Dörnyei, 2009, p. 104). In other words, the pattern organises itself in an emergent manner: the various components are changing and adapting spontaneously according to the workings of the system.

Thus, the theory not only explains non-linear flux over time, it also captures the emergence of order and dynamic stability in the systems with the help of *attractors*. These can be seen as broad magnets or ‘safety islands’ towards which the system tends to gravitate in order to achieve at least temporary equilibrium. When a system is in a strong attractor state, it is in its preferred pattern where elements in the system are coherent and resist change. This complex dynamic can be illustrated as a ball rolling around in a terrain with different landscape features. Strong attractors can be described as deep wells with steep sides, from which it would be hard for a ball to escape once inside. The strength of the attractor would depend on how deep and steep the well is: the stronger the attractor, the more energy would be required to remove the ball from the well (Larsen-Freeman & Cameron, 2008, p. 50). A constellation of attractors – that is, a number of different factors that move the ball in the same direction – forms an *attractor basin*, which exerts a coordinated pull on the trajectories that enter the basin. There can also be multiple and overlapping attractor basins within a terrain, which can cause instability (Carver & Scheier, 1999).

Associating DST with L2 motivation, Dörnyei (2009) has recently argued that the L2 Motivational Self System presents a ‘motivational landscape with three possible attractor basins’ (p. 218): one that revolves around the internal desires of the

learner, another around the social pressures exerted by learners' significant others, and the third around the actual L2 learning experience. In this latest extension of his motivation theory, Dörnyei argues for the compatibility of DST and L2 motivation by assuming that any powerful global attractor for an individual is a conglomerate of cognition, motivation, and emotion, and claims that future vision can be seen as a prime example of such a conglomerate. In the present study, such a constellation of attractors can be seen to influence the integration of the CLP Self, which is the focus of this chapter.

9.6 Research aims

This study aims to explore whether Christian Language Professionals experience an integrated vision, which is examined within the concept of possible selves theory, focusing on one's ideal and ought-to selves. In particular, I will investigate the integration of CLP self in one's work context. The main research questions are as follows:

1. Do participants experience an integrated CLP Self?
2. If so, how do these educators develop an integrated CLP Self? What are the attractors that govern the integration?

9.10 Methodology

9.10.1 Participants

Four informants were recruited through personal contacts. All of them described themselves as evangelical Christians and were known to be seasoned believers in their circles. They were all applied linguists working or having worked in the higher

education sector, but they displayed some variation in the type of work they did, the courses they taught, the positions they held in the education system, as well as in the time when they became Christians and how their vision of being Christian language educators developed.

Two of the informants, Peter¹⁰ and Daniel, are European teachers based in the UK. The other two participants, Anna and Alex, were both educators of Chinese origin, teaching in a metropolitan city in East Asia. Peter and Anna were both university professors, with the former becoming a Christian in the middle of his career while the latter committing to Christ in her college years. Daniel was at a relatively early stage of his 'teaching career' and was a missionary sent out by a UK Christian organisation to a Middle Eastern country. Alex was an interesting contrast to Daniel: although he had not been formally sent out by any mission organisation, he saw himself being in full-time mission, working as a Christian English teacher. Contrary to Daniel, Alex was at a much later stage of his teaching career.

9.10.2 Data collection and analysis

Four in-depth interviews were used to explore the research questions. The study took place in England and East Asia, respectively, in January and February 2011. An individual face-to-face interview was conducted with each informant and each interview lasted for approximately one to one and a half hours. All interviews were conducted in English. The participants were asked to talk about their journeys of becoming Christians and educators, as well as about their views as to whether they saw themselves as an integrated CLP (see Appendix G for interview questions). The

¹⁰ Aliases are used to protect the participants' identity.

interviews were voice-recorded and then transcribed verbatim by the researcher producing a corpus of nearly 30,000 words. Detailed content analysis was conducted in two stages: the four cases were first analysed individually for the most salient themes, including their ideal and ought-to selves in the realm of their Christian and professional identities, and various other factors such as their Christian values and the purposes in their lives that led to the development of an integrated CLP Self. The relationships among various themes were also identified. In the second stage, the written analyses of their own case, together with the transcripts, were sent to each individual informant. This was to confirm the validity of the analyses and to avoid the possibility of any misinterpretations on the researcher's part.

9.11 Results

9.11.1 Anna

Anna is a professor who has had ample experience teaching and researching in applied linguistics at a university in Asia, and is internationally known as a poet. She was born in a Catholic family and became a true believer of Christ in the second year of her university studies. Anna describes herself as a Christian who believes in the Bible.

In Anna's case, there was a strong quest for the meaning in life, a fundamental desire to seek her ideal self which permeated every aspect of her life. In Anna's teenage years, various events, such as her father's death and the Cultural Revolution in China, initiated a continuous, earnest longing to search for meaning. She developed a vision of helping Chinese people. In her words,

When I was seeking the meaning of life.... the Cultural Revolution ... was happening already. You got these corpses ... floating from China ... I remember talking to one of my brothers and I was crying. He said, 'Why are you crying?' I said, 'I felt very helpless ... all these poor people in China. What is happening? I would like to help them.' I remember my brother saying, 'Well, you're just a teenager. You should get educated first and then you're in a position to help people.'

In her quest for the meaning in life, Anna read various literature, ranging from philosophy, Buddhism, and Hinduism to aesthetics, but she failed to find the answers. Through the help of her Christian friends, Anna finally found meaning and faith in Christianity. At the same time, Anna's heart was still very much drawn to China. In order to achieve her vision, she was determined to become highly educated, and she pursued a doctoral degree in linguistics even when it was contrary to her own interest: 'So all this time I was still thinking one day I would go to China, not for good, but for visiting, teaching, and all that.'

Since obtaining a doctoral degree, Anna has had various opportunities to teach and conduct research in China. She has researched language education in China, held seminars on the topic, and has also written a book about it. These experiences have fulfilled the dreams she had as a teenager:

So it took me something like twenty years to have my purpose realised, my dream to do something as a teenager. It's like thirty years, almost thirty years when I could do something. It's a very long time to prepare a person, I guess. But when I went then, I was ready.

To Anna, all her identities are ‘completely integrated’ as she seeks a mission in life and meaning behind all the things she does. She has a more generalised ideal self which would be applicable to her various identities:

It’s a vision as a person because to me there’s no difference between being a teacher and being a person, or being a Christian. Everything comes together. Whether I am doing my research, whether I am doing my teaching, or whether I am doing my administration, ultimately it is service to me.

Nevertheless, her identity as a Christian is particularly important to her as a person and a professor. Her faith has a great impact on her and informs her work as a Language Professional. She sees ‘whatever she does in her job’ as service to God. For example, when she applied for a research grant, she prayed that it would not be given to her unless God saw it fit. The way she views successes and failures is also influenced by her faith:

My identity as a Christian is fundamental! What makes sense to me is that no matter how hard we try, we cannot be perfect! Only God will receive you with all your imperfections. God wants obedience, not success! And success is not what we aim for; it’s for God to give.

Thus, at the time of the interview, a point at which Anna was at an advanced position on her career ladder, she seemed to have found the answer she was searching for in her teens, the meaning and the mission of her life.

9.11.2 Peter

Peter is an applied linguist at a British university, and he describes himself as a post-Protestant, non-denominational Bible believer. At the time of the interview, Peter had been a believer for ten years. It was while he was an applied linguist that he became a Christian, and this being the case, he had had a strong sense of Language Professional identity firmly in place in his self system before his Christian Self came into play. He sees himself as ‘a professor in the university, trying to do his job well;’ he loves this field and is successful in it.

Thus, when Peter first became a Christian, there were distinct boundaries between the professional and faith-based spheres in his mindset: ‘What happened first was that I did my job exactly as I used to do and, besides, I tried to be a decent person. And I had my completely independent Christian life.’ His Christian identity and LP identity felt very much intact and independent. Despite this fact, he developed a strong sense of duty of what he should do as a Christian according to Christian values. This Ought-to CLP Self became a powerful attractor and initiated changes in his overall self system over time.

As a first step toward integration, his Ought-to Christian Self, that is, who he felt he *should be*, led him to identify himself as a Christian in his professional realm:

They keep asking you in sermons and in books whether people around you know that you are a Christian. So I made sure that people did know.

In the next phase, there were several events that helped him further develop his integrated CLP Self. He started meeting student believers in an MA class and he

commented that ‘there was this kind of openness that I am a Christian professional.’ He also started taking on mature Christian postgraduate students and found himself supervising research on Christian topics. In addition, he was invited to speak at Christian events and started a research project pertaining to Christianity:

And certainly more and more things are opening up. Suddenly it’s almost like I am getting ready to appropriate my Christian self. It’s as if God has given me opportunities to grow up... More and more of my professional life is explicitly Christian-oriented.

In the interview, Peter also gave examples of how some of his students came to know Christ. Such instances made him realise that he had a role to play in these students’ conversion: ‘I realised that it wasn’t me, but I had to play my role. So I started to think, “How can I combine this with my profession?”’

Although, as the above indicates, Peter’s CLP Self was developing and was gradually becoming increasingly integrated, when asked whether he had a vision of his Ideal CLP Self, he did not give an affirmative answer:

I have this feeling that with my Christian walk in general: I know that I am moving forward and I am doing very specific things, but I have no idea where it’s going to take me...

For Peter, the feeling of the lack of a strong, integrated CLP vision could be explained by the fact that there are conflicts among Peter’s Ideal Christian Self, Ought-to CLP Self, and his Ought-to LP Self. First, he has stated that his Christian

identity is the strongest facet of his overall identity and it presumably influences many of the decisions in various areas of his life. According to Peter, becoming ‘fully Christian’ might even mean going in a completely new direction and leaving behind applied linguistics. He can envisage himself in various Christian roles, including preaching in a church one day:

So for me the real identity is that I think I am a Christian ... that’s more universal, that’s a very deep part of my identity. I could say that rather than stating that ‘I am an applied linguist’.

Secondly, although his Ought-to CLP Self suggests that it is ‘more important for students to become a Christian than to get a PhD,’ his Ought-to LP Self responds that being employed as a Language Professional by a secular university means that Christianity should be set aside during his formal interactions with students. For reasons of this kind, the gradual integration in Peter’s Ideal CLP Self has not reached full integration. Instead, what seems to be guiding Peter’s actions and behaviors is making himself available to respond to prompts from God. As he puts it, ‘the question ever since has been: Do I need to be more proactive? Or is it enough that when I sense that there is a prompt by God, then I respond? That’s my dilemma.’

9.11.3 Daniel

Daniel is an English missionary who has had some experience teaching ESL part-time to university students in an Asian country. At the time of the interview, Daniel

had completed his Master's in applied linguistics at a British university and was waiting to embark on teaching English in country Y¹¹.

Brought up in a strong Christian family, Daniel's Ideal Christian Self and Christian values were major attractors in his overall self system from the beginning he grew up 'knowing about God and the Bible.' He was very much involved in the Christian Union in college and felt God calling him to be a missionary in a Muslim country. A strong desire and vision to share his faith led him to become a missionary in Country Y.

As time progressed, there were changes in his self system as his interest in teaching became an influential factor. His Ideal LP Self started to develop as an attractor when he had a chance to teach English even though he had no prior experience. He fell in love with the profession and it became more than a mere tool for him: it was something he genuinely enjoyed and wanted to do well in. This growing attractor was nurtured by ideal environmental circumstances since he was working in an optimal situation, teaching small English conversational classes with highly motivated university students. As he summarises,

I actually enjoy trying to help the students to learn with their English.

Sometimes people say to me, 'So is being an English teacher your cover for being in the country?' And for me, no! Not at all! I want to be a good English teacher and I enjoy trying to help students with their English.

¹¹ The specific name of the country is disguised to protect the identity of the informant.

Another key factor contributing to his passion for teaching was his ability to express both his Christian and LP identities in the classroom, as a result of similarities between his role as a Language Professional and as a missionary. Due to cultural and contextual factors, his work provided an ideal context for him to share his faith as a Christian: Daniel's Muslim students were excited to talk about religion, and even his Muslim line manager was thrilled about him creating opportunities for students to talk about religion because of the shared values between Islam and Christianity. As he reported, 'In the culture in [this] country, religion is the topic that people want to talk about. The number one topic they are talking about is religion.' These favorable circumstances helped him to share his faith 'in a moderate level' and 'in a sensitive way.'

Daniel also experienced positive emotions in the classroom and received good feedback from his students. It was 'thrilling' for him to witness 'Christians and Muslim students relating very positively with one another.' Daniel saw English teaching as a 'really good medium to help break down the barriers that exists between Muslim and Christian communities in Country Y.' This was also what he wanted to do as a missionary. It was the social and community side of class which he found 'the most exciting' and which enthused Daniel as a CLP. As he recalls,

When I gave them the opportunity to do presentation in class on any topic they wanted to, two of the girls chose a specific topic 'For my love for God' and openly asked the class at the end. This was just wonderful! A mixed class! And I said, 'Could I please ask now if any of you have your favorite verses from the Koran or the Bible that you would like to share with the rest of the class?'

Daniel's Ought-to CLP Self, which involved positive regard and care for his students, was the main priority for him. This identity profoundly guided his behaviors as a teacher and the integration as a CLP. As he summed up in the interview,

It's very important to me and I share that with my students, 'It's actually the most important thing to me is that you feel loved. I almost care about that more than your English. I care more about you as people.' That's an obligation from the Bible and from God himself.

Daniel's Ideal LP Self also led him to pursue a Master's degree in applied linguistics, and having completed his degree successfully, he has had a growing vision as a teacher, including helping to reform the education system and the way they teach English in Country Y. He has also had images of himself being back in the same classroom which contributed to the integration of his Ideal CLP Self.

When asked, Daniel said he felt that the integration of his Christian and Language Professional Selves was still in progress, because he was only at an early stage of his teaching career. As the two selves are starting to merge, a wide attractor basin is developing to cater for his CLP vision; and he has surprised himself by the fact that even after graduating from his Master's degree he has still been buying academic books on applied linguistics. Daniel feels strongly about English teaching, and he concludes, he can 'almost' say that even if he were not able to relate Christianity with his teaching, he would still be interested in becoming an English teacher.

9.11.4 Alex

Alex is a Senior Lecturer teaching at an East Asian university, who has had ample experience in teaching many different courses ranging from academic English to English literature. Since Alex became a Christian in his first year in college, his Ideal Christian Self has developed into a strong attractor in his self system:

I became a Christian. And then I thought about my vocation, my calling in life ... I decided that I wanted my academic training and career to be closely aligned with my faith as a Christian.

He made a pivotal decision in transferring from a journalism major to English in his third year of college as his Ideal CLP Self started to develop. He thought about life values and the way he wanted to spend his life, and decided he wanted to become an English teacher so as to gain access to other countries as a missionary. This Ideal CLP Self was also enhanced by inspiring Christians he encountered who had a tremendous influence on the choices he made in life. As he recalls,

I wanted to become a missionary, right? But I was not an engineer, I was not an agriculturist. What could I do if I wanted to go to Indonesia or Thailand? So, maybe I could teach English and then I could be a missionary.

Even in his early years as a Christian, Alex's independent Christian Self and Language Professional Self were influencing each other, interacting and integrating

gradually. He remembers occasions in which he taught the Bible at church and realised that ‘God had probably given him a gift for teaching’ and comprehended how important language was as a means of serving God. Also, as he studied English as a major, he became increasingly interested in literature and his studies helped him to serve at the church because his training in literature allowed him to ‘understand the Bible more’ and to ‘teach it in an interesting way to people.’ It was, in fact, when he finished his MA course in literature and had spent a long period of time praying about his future, seeking what God would have him do in life, that his Ideal CLP Self emerged along with a specific path for his future:

There were twenty doors open and the doors gradually closed one by one.

And so in the second semester in my Master’s level, only one door remained open. This was to go and teach in a Christian university in Taiwan.

As he taught English and American literature in Taiwan, the job opened a new horizon for Alex. This position helped him to fully discover his interest and love for literature. He said that it became ‘very clear to him what God had been calling him to do in his life, to be an English teacher: to teach literature, to teach English.’ These compelling emotions along with the knowledge that language can be an effective tool to serve God resulted in a strong integration of his Ideal Christian and LP Self, thus creating a new and potent attractor basin. In his words,

I have the strength, I have the enthusiasm, I have the passion. It’s so obvious when I started doing it. People said, ‘Oh, your teaching is so clear...

everything is! We can understand whatever you said.’ I feel the interest. I feel that the gift is there.

Indeed, this attractor state determined Alex’s actions in deciding to pursue a PhD on the teaching of literature, and it was the same attractor basin that also caused him to feel dejected when subsequently he did not have the opportunity to teach literature over a ten-year period. At the end of this period of ‘stagnation’ he was again given the chance to teach literature, an area in which he is thriving:

I think literature really means a lot to me because it’s very much integrated with my faith, with my teaching of the Bible at church, the way I look at life, and also the kind of person I have become as a result of teaching literature.

Alex comments that his ‘vision strengthens as time goes on’ and he feels very much integrated as a CLP. This is not only because of the content he is teaching, but because ‘biblical values inform my everyday work.’ He brings Christian values such as patience, kindness, and righteousness into the classroom and he also sees teaching as a service to God. He perceives students in his class as precious, valuable human beings, individuals whom God had entrusted to him and people who should be respected. He, therefore, goes into class with a mission, seeing students as sheep he should take care of as a Christian teacher:

I try my best to remember that every class I teach, I teach for God. Then I try ... I usually arrive a little early and I pray. So, when it goes well, it’s not

important. I just teach it for God. That's what I remind myself every day: this work...every work is ministry.

9.12 Discussion

The interview data revealed that all four informants experienced an integrated CLP Self to some extent. However, although all the participants were devout Christians, the data point to different trajectories in the development of their vision as CLPs and we do not find the same pattern of integration of their CLP Selves in their accounts. We can distinguish three main patterns displayed by the participants: (a) *full integration as a person*, (b) *full integration of the Ideal CLP Self*, and (c) *partial integration of the CLP Self*.

As seen above, Anna can be characterised as being fully integrated as a person because her self-dimensions – including her Christian Self and her LP Self, as well as various other self-facets – were fully merged and integrated. To her, it ‘does not make sense’ to compartmentalise the various areas of her life. Anna pursued the same purpose in all that she did. Alex is similar to Anna in that he has successfully harmonised his various goals and identities, and he is intrinsically motivated to be both a Christian and a teacher. As a result, he now displays an integrated CLP self.

Both Daniel and Peter's Ideal CLP selves can be described as partially integrated. For Peter, although he has found his Christian and LP identities largely situated and compartmentalised, as he began to share his life story in the interview, it became evident that multiple ‘incidents’ were facilitating the integration of his CLP Self. It seemed that during the self-reflection process that was part of being interviewed, Peter was discovering an aspect of his emerging self that he had not been consciously aware of. As for Daniel, his Ideal CLP Self was taking shape as he

was training or become a Language Professional. He mentioned after the interview that his Ideal LP Self was in the process of development as he was getting genuinely interested both in teaching and in applied linguistics. However, because he was still a relatively inexperienced teacher, his Ideal LP self was only at the initial stage of becoming integrated with his Ideal Christian Self.

Beyond the diverse patterns of actual integration as indicated above, we can also observe the dynamics of how the participants developed their unique, personalised vision. We saw that all the informants shared a similar initial phase in the development of their CLP Self, that is thoughtful deliberation of what they would like to do or should do in the distant future. For Anna, it was the primary desire to find answers to the meaning of life: ‘What does it mean to be alive?’ Daniel and Alex were both contemplating a vocational calling: Daniel was ‘really feeling that God was calling [him] to serve in the Muslim world’ and Alex said that he ‘became a Christian and then thought about [his] calling and [his] vocation.’ For Peter, it was a strong sense of duty of what he should do as a Christian that initiated his self integration.

These initial considerations instigated bi-directional interactions among various components in their self systems, resulting in unique attractor basins that governed the process of integration for each individual. A different set of attractors influenced each informant. For example, it was Anna’s Ideal Self, her Christian values (e.g. a core purpose to serve), and a deep sense of social commitment that formed the centre of the overall attractor basin in her self system. This set of attractors has determined the trajectories of her various actions and she finds equilibrium only when the various aspects of her self are in harmony. For Peter, his Ought-to CLP and LP Selves together with a strong self-awareness led him to

identify himself as a Christian professional, and to display prominent identity cues at work. Several factors in the environment then responded to these cues, and various people and events were gradually ‘pulled into the attractor state.’ In Peter’s own words, ‘there were suddenly some interesting things happening,’ such as talking with Christian students, sharing his faith with PhD students, his students coming to believe in Christ, and him being invited to collaborate in academic projects related to Christianity.

For Daniel, it was the inadvertent opportunity to teach when he discovered his immense interest and motivation in this profession, which became a strong attractor in his self system. This newly found passion, accompanied by the positive emotions experienced in the classroom, helped his Ideal LP Self to start merging with his well-established Ideal Christian Self. For Alex, having decided to align his faith with his profession at an early stage, a powerful conglomerate of attractors started to come into view. This included the various Christian father figures who were models for Alex’s Ideal Christian Self, an awareness of his natural ability in teaching, his Christian values, and his love for literature. Compelling emotions along with the knowledge that language can be an effective tool to serve God as well as the conviction that this was the right path for him, resulted in a strong integration of his Ideal Christian and Language Professional Selves.

The significance of the participants’ actions should be highlighted within the multiple interactions between the environment and their internal resources. It was only when Daniel started teaching that he discovered his interest in this profession, which grew to the point that he pursued a Master’s degree in applied linguistics the positive teaching environment likewise facilitated the development of his vision. The same was true for Alex regarding his love for literature, which was realised when he

started teaching American literature in Taiwan. And it was only when Peter publically acknowledged his Christian identity at work that ‘interesting things started to happen.’ Thus, their overall attractor basins subsumed various contextual factors and interacted with the specific actions taken by each individual; the resulting interactions wove together a distinctive pattern of Ideal CLP Self development, creating a powerful and integrated vision.

In accordance with descriptions in the literature of possible selves theory regarding the comparison of actual and possible selves, it was evident that the participants of the current study also had a strong awareness of where they were and where they would like to be. They observed and evaluated the way in which they acted as CLPs. For example, Peter commented that it was ‘interesting’ for him to see himself interacting with Christian students and he became increasingly aware of the role he played in his students’ conversion. Alex was conscious of his internal resources, such as his natural abilities in teaching and his love for literature, and how these were reinforced by the responses of his students, which in turn reinforced the development of his Ideal CLP Self.

Similar to the life cycles of any living organisms, the development of each self system has been constantly evolving over time: the participants reported states of growth, stability, and stagnation in the development of their CLP vision. In the ‘growth phase’ the CLP selves became more detailed and specific, which is well illustrated by Anna, whose initial Ideal Self was to help people in China, but it later developed into ‘enhancing the exchange between China and the rest of the world.’ Another example is Alex, whose Ideal CLP Self as a literature teacher turned into a teacher trainer in English literature at a later stage. In contrast to the scaffolding factors that enhanced the development and enactment of an integrated personal

vision, there were also some *limiting factors* in operation, as in Peter's case where his conflicting Ought-to Christian and Language Professional Selves prevented a full CLP Self integration.

9.13 Conclusion

To conclude, the results of this study show that even committed Christians do not share the same pattern of Ideal CLP Self integration: each participant displayed a unique pattern with varying degrees of stability in their self systems. Beyond the diversity of the patterns, however, a potent overall attractor basin was seen to emerge, which in turn directed the further dynamics and development of the individual's self system. The DST paradigm adopted in this study, combined with Dörnyei's (2005, 2009) L2 Motivational Self System, offered a useful interpretive framework to investigate and explain the evolution of the Ideal and Ought-to Self constructs in the development of vision in Christian Language Professionals. This generic approach can be further extended to explore the development of vision in Christians in other professions or even the integration of professional identities with visions of different faiths.

Part Three: Discussion and Conclusion

Chapter 10

Discussion and Conclusion

10.1 Introduction

Having presented the four studies in the previous section, I now recapitulate the essence and main findings of the studies, as well as their strength and weaknesses (Section 10.2). In addition, I focus on the emerging themes from these studies (Section 10.3), pedagogical implications (Section 10.4) and future research (Section 10.5). Finally, a concluding section (Section 10.6) is provided. It is worthy to note here that my intention for this section to be informed both by the results established in the thesis and by the wider literature on possible selves, vision and dynamic systems theory, so that readers may have a broader view of the constructs/concepts under examination.

10.2 Summaries of the four studies

10.2.1 The RQM study (Study I)

With the aims to investigate learner archetypes and signature dynamics, this study employed ‘retrodictive qualitative modelling’ (RQM), an approach that examines the outcomes prior to exploring the developmental trajectories that lead to these end-states (Dörnyei, 2014). Seven learner archetypes, each varying in his/her motivation, cognition, emotions and behaviours, were identified in a teacher focus group interview; and a prototypical (or prototype-resembling) learner from each archetype was interviewed to explore the motivational paths and signature dynamics linked with each prototype.

Several findings were revealed from the study: apart from the fact that different learner archetypes existed in teachers' minds, we established the presence of a limited number of end-states and therefore settled attractor states, maintaining the fact that teachers do not think of 30+ different learner archetypes in a class. We have also found that some students belonging to a particular learner archetype may shift into another state or another 'kind' (Byrne & Callaghan, 2014, p. 59) which could be due to the re-structuring of the attractor basin. This means that although complex systems have a tendency to settle into temporary attractor states, they remain dynamic and are never completely static. In addition, through analysing learners' motivational trajectories, closed loop of periodic movements between different attractors states (Larsen-Freeman & Cameron, 2008) have been observed. The existence of some common core attractors (such as *simulations*, *fear of failure*, *avoidance* etc.) were also evident in the state space.

10.2.2 Motivation and vision: A mixed method study (Study II)

This is a mixed-method study (questionnaire survey and post-survey interviews) that replicates Eid's (2008) study and explores the links between sensory styles, imagery capacity, future L2 self-guides and criterion measures, focusing their effects on two target languages (English and Mandarin). 172 participants (ages 13-15) in a junior secondary school participated in the study and eight students took part in in-depth focus group interviews. The results identified strong, positive correlations between the two ideal self-guides (the English- and Mandarin-specific Ideal Selves) and learners' effort in L2 learning, while links between the ideal self-guides and students' actual grades were moderate. Similarly, the set of Ought-to L2 Selves were significantly correlated with the learners' criterion measures but they made no direct

associations with the actual grades in Mandarin. More importantly, significant positive associations were found between learners' future L2 self-guides (both Ideal and Ought-to L2 Selves), sensory styles (both visual and auditory) and imagery capacity. Imagined visualisation and auditory styles were shown to be pivotal components in learners' future L2 self-guides, suggesting that multiple senses and imagery capacity are involved in experiencing the future state.

10.2.3 Effects of an imagery training strategy (Study III)

This study investigated the impact of an imagery intervention conducted in a credit-bearing ESP (English for specific purposes) course for Chinese university students. Several success criteria were employed, including the measurement of (1) the qualitative and (2) the quantitative change of possible L2 selves, as well as (3) students' feedback on the intervention. The intervention – contextualised within a twelve-week, compulsory university English course for second-year science students in Hong Kong – consisted of three components: in-class visualisations, the creation of an Ideal Selves Tree and language counselling. The imagery intervention impacted positively on students' possible L2 selves and learning experience: quantitatively, the results reveal a significant increase in learners' Ideal L2 Self; and qualitatively, there were changes in various facets of possible L2 selves, with the possible L2 selves either emerging or fading. Among the various future self-guides, the emerging L2-speaking self was found to be the most prominent towards the end of the intervention and it could be due to a heavy speaking component in the course, in which students were encouraged to envisage their Ideal Speaking Self in various learning tasks. Encouraging student feedback towards the intervention was also received, with language counselling session attaining the highest score.

10.2.4 Christian Language Professionals and integrated vision (Study IV)

This qualitative study investigated whether CLPs experienced an integrated vision through the lens of possible selves theory. The research questions included whether the participants experienced an integrated CLP self and, if so, how it is developed. Four informants who were both Christian and language professional participated in the study. Their narratives revealed various developmental trajectories of their vision as CLPs and three main attractor states were displayed: (a) full integration as a person; (b) full integration of the CLP Self; and (c) partial integration of the CLP Self. The results were interpreted in a dynamic system approach wherein key attractors that influenced the trajectories of each participant's actions were identified. The participants' actions, their strengths and internal resources, as well as the opportunities they encountered in their life were significant in the development of their vision. The development of each self-system has been compared to the life cycle of all living organisms, in which growth, stability and stagnation in the development of their CLP vision were observed. Whether CLPs experience an integrated vision is an important issue since *faith* can be seen as one of the vital aspects in teachers' personal identity. Studying teachers' life experiences and background are the key elements constituting who teachers are and their sense of self (Goodson, 2003), which will in turn influence their motivation, their pedagogy and the way they interact with students.

10.3 Emerging themes

10.3.1 Researching L2 motivation from a dynamic systems perspective (Studies I & IV)

Regarding the complex and dynamic nature of L2 motivation, we observed that the *trajectories* in L2 motivation (Study I) and in the development of CLP vision (Study IV) are highly contextualised and unique to each individual. Essentially, when the individuals' motivational trajectories are compared, each one is unique. Despite the unique routes as shown in the participants' accounts, the state space is typically featured with only a limited number of attractor states or system outcomes. In Study I, seven learner archetypes were identified at this particular research site. In addition, each system moved periodically from a limited number of attractor states. Taking Chris as an example, the system moves periodically among the attractor states of *simulation*, *fear of failure* and *maintenance of esteem*. Similar patterns of 'closed-loop period movement' (with different combinations of attractor states) were also observed in other participants.

Likewise, in Study IV we also observed a limited number of system outcomes of self-integration–full integration as a person; full integration of the Ideal CLP Self and partial integration of the CLP Self–and if more participants were interviewed, it is not difficult to imagine that some may have non-integration of the CLP Self. It is the same for the number of attractors; that is, there are only a limited number of attractors that are displayed in the basin of CLP integration. Some of these attractors included the development of vision (i.e. with the participants deliberating their distant goals), strong Christian values, and the various ideal and ought-to selves. These attractors interacted with various components in the state

space that governed the process of integration. Indeed, this resonates with other research showing that Christian teachers' identities are:

a result of a complex and dynamic relationship between the teachers' sociocultural and educational backgrounds and spiritual-formation histories, on the one hand, and the specific professional and cultural contexts in which their identities are invested, on the other. (Kubanyiova, 2013b, p. 88)

Following this line of thought, another interesting issue that has arisen from a dynamic systems perspective is the social nature of L2 motivation. The importance of social influence was revealed in Study I with the existence of core attractors, such as the desire to be nurtured, the maintenance of self-esteem, and stimulation (the desire to compete with others) in the state space. Such influence is evident as the participants voiced their desires to look for guidance from teachers/parents/peers, to seek approval from them and/or to compete with them. Examples can be seen in various participants including Saki whose English teacher played a major role in improving in his proficiency and confidence in English. It can also be seen in Chris whose uncle and grandmother had a significant impact on his learning.

The prominence of social influence has been emphasised by Irie and Brewster (2013), whose study shows that 'more than just events specifically related to L2 learning had significant impact on the learners' selves, and therefore their L2 selves' (p. 116). So even events that are irrelevant to L2 learning (e.g. apprehending an arsonist) can have a positive impact on a participant's L2 self, as shown in the case of Irie and Brewster's study. This is in line with the proposal of the most recent

and novel theoretical framework ‘Directed Motivational Currents’ (DMCs) (Dörnyei et al., in press), suggesting that ‘specific *triggering stimuli*’ play an important role in initiating of DMC (the emphasis theirs).

In the same way, in Study IV, environmental and social factors played a role in deepening and/or widening an attractor basin. The social nature of L2 motivation and Christian faith has been explained by Ushioda (2013):

[This] social nature is reflected in shared religious belief systems, cultures, and practices within various communities through the ages and across the globe, and in associated processes of socialization and religious education within communities, as well as (in many cases) a mission for communication and dissemination beyond. (p. 225)

Indeed, the nature of Christianity as a religion is itself social in that it focuses on the relationship with God and fellow neighbours; biblical teachings for Christians to ‘spur one another on toward love and good deeds’ and ‘not [give] up meeting together’ (Hebrew 10: 24-25) reflect the social perspectives of Christianity.

Apart from having the social impetus to act upon a person’s vision and Ideal CLP Self (as encouraged from biblical teachings), social contexts also exerted influence on the participants. This is evident in their accounts that significant others are essential to the integration of their Ideal CLP Selves. Some examples include Anna’s brother who was an important role model for her and Peter’s ministers who acted as a key catalyst in his initial step toward CLP Self integration as they urged him to reveal his Christian identity in different situations, leading him to ‘[make] sure that people did know’. Indeed, there are complex dynamics that are working

between the *intra*-personal processes as well as all the *inter*-personal processes, with the inner dialogues and workings of the self being impacted by the outer events and social influences.

10.3.2 The distinctiveness of possible L2 selves (Studies II & IV)

Regarding the distinctiveness and independence of selves, different patterns of self-integrations were revealed in Studies II and IV—that is, selves in the same domain (language selves in Study II) or in different domains (Christian and language professional selves in Study IV) could exist independently or merged. From the results of a quantitative survey (Study II), different language-specific future self-guides existed as distinctive and independent identities as shown by the distinct motivational capacity of the different language selves. In this case, the English-specific possible selves are shown to be independent from the Mandarin-specific ones. Instead of having a composite Ideal or Ought-to L2 Self for the different languages a learner is learning, they seem to be independent constructs. As mentioned in Chapter 7, further evidence supporting this claim has been provided in two studies by Henry (2010, 2011), whose results also suggest the presence of independent L2 selves.

And yet, Study IV revealed different patterns of self-integration of Christian Self and Language Professional Self can be seen: that is, they can either be fully integrated or partially integrated and the analysis of Study IV shows the existence of a composite, integrated CLP Self. The findings from the two studies suggest that selves are multifaceted and malleable constructs that can either remain independent and distinctive or be integrated and composite, implying that these constructs could vary among individuals. Here, only future research will be able to tell (a) whether

there are individuals with an L2-specific possible selves to integrate with an L3-related possible selves, and (b) how generalisable are the different integrations of the CLP Self.

10.3.3 The development of possible selves (Studies III & IV)

We saw the emergence and fading away of different possible selves as time progresses, which is evident in Study III wherein the Ideal Speaking Self prominently emerged and continued as compared to other selves. On the other hand, L2 selves could also fade away—for example, the Ideal Listening Self faded away more notably than other L2 selves. This could be related to contextual factors: that is, there was a heavy speaking component in the course materials and in the intervention. This particular intervention study did not find many changes apart from the emerging Ideal Speaking Self. Indeed, we can say that not all the interventions create a drastic change of possible selves. For example, Bardach, Gayer, Clinkinbeard, Zanjani, & Watkins (2010) did not find any significant possible-selves changes in an intervention to improve people's expectations about aging. In this study, intervention presentation describing how older people are aging positively was offered to both university student group as well as middle-age adults. The researchers suggested that a lack of increase in future possible selves in the participants could be due to the relatively short duration of the intervention. Because of this, future possible selves did not increase immediately after the intervention.

As shown in Study IV, the integration of CLP selves and new social identities emerge as the participants became affiliated to a new 'community of practice' (Sade, 2012, p. 46). For three of the participants, including Anna, Daniel and Alex, we can say that the development of *Christian Self* deepened as they came

to the heart of their participation of religious community/institution. It was especially apparent in Alex's case that his Christian Self attractor state was deepening as other system components, such as strong social influence from a few pastors, became a strong attractor in the system that influenced the trajectory, inspiring him to create the vision to become a language-teaching missionary. This means that the Christian and Language Professional Selves are fully integrated as Alex could envision being a missionary using his language skills. Sade (2012) refers to such an emergence as 'identity fractal' which is described as:

The emergence of a social identity, which I will call here 'identity fractal', will demand a set of 'appropriate' linguistic and non-linguistic patterns of behaviors – discursive attractors – that will constrain the individual's actions while operating within a particular identity fractal. (p. 45)

The three types of integration found in Study IV bore resemblance to the development of L2 self and vision that has been investigated by Irie and Brewster (2013) in that a wide range in the 'vividness' of the desired future self-guides were shown. With the aim to investigate whether L2 learners can be categorised into motivational profiles based on the theory of self-discrepancy, it was found that the students demonstrated different degrees of elaborateness in their Ideal L2 Self and vision. Among Irie and Brewster's (2013) multiple-case study, participant Makio developed an elaborate and vivid Ideal L2 Self which helped to exert his effort in L2 motivation. Participant Saki's desired future self-image was relatively vague while participant Yuya's developed no Ideal or Ought-to L2 Self.

Not unlike the focus of Study IV, which explored the integration of Christian and Language Professional Selves, researchers have also viewed teacher identity as a composite construct in which personal, professional and contextual factors all play a part (Day & Kington, 2008) and it is difficult for teachers to separate their identity from teaching (Glanzer & Talbert, 2005).

10.3.4 The motivational functions of the ideal self and vision (Studies I, II & IV)

Findings from Studies II and IV have converged to confirm the motivational functions of the Ideal L2 Self. In Study II, positive correlations were found between the ideal self-guides (the English- and Mandarin-specific Ideal Selves) and learners' effort in learning as well as the actual academic achievements. In Study IV, the presence of an Ideal CLP Self (whether fully or partially integrated) played an important role in how the participants behaved and presented themselves in their workplace and how they were consciously steering their actions towards a particular vision. For example, as one of the participants Alex felt very much integrated as a CLP, his vision and identity informed his everyday work and motivated him to bring Christian values to his classroom on a daily basis. And even when the CLP Self is partially integrated, as in the case of Peter, in his own words, 'more and more of my professional life is explicitly Christian-oriented'.

Similarly, traces of evidence from Study I also point to the motivational functions of the ideal self: when a relatively strong Ideal L2 Self exists in the state space, it plays a role in directing the system's motivational trajectory—which was observed in participants such as Chris and Saki, who were said to be highly

motivated when compared to other peers¹². On the contrary, the participants who lack the Ideal L2 Self—e.g. Danny who was seen as demotivated and problematic—are usually found to be without specific, L2-related goals and strategies; this could have played a part in their lack of L2 motivation.

The importance of vision and imagery in L2 learning emerged in the results of Studies II and III: (a) visual style, auditory style, and imagery capacity were observed to be one of the vital components in the participants' Ideal and Ought-to L2 Selves, positively linked to criterion measures (Study II); (b) visualisation exercises were regarded as a useful training strategy (Study III); and (c) as a result of the vision training intervention, the strength of students' Ideal L2 Self significantly increased (Study III).

Indeed, the value of vision and imagery have been confirmed by recent studies such as one conducted by Munezane (2013), who found that Japanese university students with the opportunities to visualise themselves as future scientists and engineers (by discussing global issues and presenting creative ideas to solve such problems) are significantly more motivated after an academic semester. Similarly, Murray (2012) found that imagination plays a role in different stages of a self-directed language learning course including goal-setting, engagement in learning materials, learning strategies and strategies to monitor their own progress and assessment. These findings suggest that imagery capacity can be a vital element in developing L2 learners' Ideal L2 Self, vision and L2 learning.

¹² The Ideal L2 Self is only one of the sub-components in the attractor basin that influenced the direction of the system.

10.4 Research implications

This section concerns the methodological lessons that have emerged from the four studies. Regarding the RQM study, the most prominent methodological issue concerned the difficulties of recruiting prototypical students for each identified archetype. Since some of the ‘ideal’ participants did not agree to take part in the study, I had to turn to ‘prototype-resembling’ participants at times. In addition, it was also found that one of the prototypical students nominated by the teacher focus group did not match the description of the archetypes, which could have resulted from the *actor-observer effect* (Robins et al., 1996). A related issue concerned the sole reliance on students’ accounts in the study. Using triangulations such as teacher interviews and classroom observations would have been conducive in obtaining a more impartial picture. Also, there were questions as to what constitutes a ‘signature dynamic’, that is, whether it should be conceptualised to be crucial aspects/attributes of a case, the trajectory that shows the direction of system behaviour or the characterisation of the attractor basin.

Admittedly, an RQM study is not that different from a well-conducted interview, but there is a major difference between the two in terms of sampling. One well-known weakness of qualitative research is the typically somewhat ad-hoc sampling (Dörnyei, 2007). In an RQM study, the researcher pursues purposive, theory-based sampling, focusing on the observed archetypes that correspond to various attractor states. The benefit of systematic sampling is that the researcher can be more confident about generalising the findings; it still needs to be done cautiously in order not to overstate the results, but because these were obtained from carefully selected individuals, it can be claimed that the lessons learnt from their stories have a wider significance than what a typical qualitative study can achieve.

For Study II, the cross-sectional nature of the questionnaire survey meant that the results cannot reflect the long-term development and dynamics of the various scales measured. Another concern specific to this study is that the measurement of the sensory variables was not ideal for two reasons. First, the visual style scale only offered limited reliability, which restricted the scale's sensitivity. Second, the use of a single variable to assess imagery capacity (i.e. Richardson, 1994) was inadequate for examining the richness of the various dimensions and modalities subsumed under the umbrella term of 'imagery capacity'. Similarly, the findings indicated that it would have been useful to include several variables to contribute to the Ought-to L2 Self dimension, as has been done, for example, by Taguchi et al. (2009).

For Study III, the main methodological concern involved the limited number of motivational strategies used to enhance the students' vision. This was the result of the intervention being conducted in a fully-developed ESP course, which set considerable time constraints, which also limited the length of the treatment. In addition, because the intervention targeted three motivational different components, the effects of each strategy were not individually investigated.

Finally, for Study IV, the exploratory qualitative interviews identified three different degrees of integration between the individuals' professional and personal selves. This finding would have lent itself to an RQM study, looking at the various degrees of integration as established archetypes and examining in a retrospective manner why the specific individuals arrived at a specific type of integration and not at another.

10.5 Pedagogical Implications

10.5.1 The importance of developing students' use of imagination

With visual style, auditory style and imagery capacity represented as significant portions in the participants' Ideal L2 Self, sensory styles and imagination are potentially important aspects to develop in L2 learners. It can be particularly useful in contexts where teachers are strongly encouraged to incorporate integrative and creative language use in class in order to 'respond and give expression to real and imaginative experience' (Curriculum Development Council and the Hong Kong Examinations and Assessment Authority, 2007, p. 74). Its importance can be noted from the recommendations of education authorities, such as the Curriculum Development Council and the Hong Kong Examinations and Assessment Authority (2007, with updates in January 2014):

Teachers should stimulate learners' imagination, sharpen their aesthetic sensitivity, promote the sharing of experiences and foster inter-cultural awareness and understanding. (p. 74)

It is important to make use of materials which stimulate their personal imagination and involvement. (p. 88)

In addition, in one of the descriptors of expected achievements across the school curriculum in Hong Kong, learners are required to learn to develop 'the ability to fantasise and imagine, 'see things in the "mind's eye" and mentally manipulate images and ideas' (Curriculum Development Council and the Hong Kong Examinations and Assessment Authority, 2007, p. 135). Indeed, the use of

imagination has been mentioned in many other national curricula, such as the curriculum for modern foreign languages in the primary national curriculum in the United Kingdom (Department for Education, 2013) and in the instruction of mother tongue languages (Finnish National Board of Education, 2003).

10.5.2 Ways to develop students' possible L2 selves and vision

We recommend the use of guided imagery in the L2 classroom to help learners develop their possible L2 selves and vision as it can '[direct] students in controlled daydreaming, [...] helping them to consciously generate images of desires (language) selves in their own minds' (Dörnyei & Kubanyiova, 2014, p. 68). The effectiveness of guided imagery is reliant on the participants' ability to image (Martin et al., 1999); and a few participants in Study II did suggest that it could be difficult to visualise especially when one is feeling exhausted. To this end, it is important to create optimum conditions, which include selecting a suitable time of the day and providing a comfortable environment.

To maximise the benefits of guided imagery, it is best to use affirmative language (Aravena, Delevoye-Turrell, Deprez, Cheylus, et al., 2012) and concrete words to enhance vividness (Campos, Gómez-Juncal, & Pérez-Fabello, 2007). Learners can practise mental imagery with the aim of utilising as much sensory information as possible, including visual, auditory, olfactory, gustation. Drawing from different sensory information helps the individual to create a more realistic simulation (Behncke, 2004). Perhaps the use of technology (e.g. showing learners video clips) could also be used to enhance their vision (Collier-Meek, Fallon, Johnson, Sanetti, & Delcampo, 2012; Prater, Carter, Hitchcock, & Dowrick, 2011).

Several further conditions should also be fulfilled for imagery to attain a powerful motivating capacity. The first is the need to create imagery that is (a) linked with a strong desire; (b) specific; (c) grounded in reality; and (d) accompanied with a concrete plan. In addition, the imager should have imagery that is (e) not competing. He/she should (f) stay focused while working on a task; (g) keep the imagery alive; (h) be aware of the discrepancy between imagination and reality; (i) not give up when the reality is different from their imagination; and (j) create mostly positive imagery rather than negative ones (Chan, 2013).

Indeed, to motivate students to learn a second language through vision, Dörnyei and Kubanyiova (2014) suggest several steps, these include:

- the construction of desired future selves (creating the vision)
- imagery enhancement (strengthening the vision)
- making the desired future selves plausible (substantiating the vision)
- developing an action plan (transforming the vision into action)
- activating the desired future selves (keeping the vision alive)
- considering failure (counterbalancing the vision)

One of the very first steps to create the vision as suggested by the authors is to understand the learners' 'current identity concerns and their lived experiences' (p. 2). Understanding every student especially when teachers are teaching a few classes of 30+ learners may not be easy, but may find more about the students through some research-inspired pedagogical strategies. In their book, Dörnyei and Kubanyiova (2014) mention a few data collection methods by researchers including Sarah Mercer (2011) who used interviews as well as written tasks (e.g. your language learning life history) to elicit students' self-concepts and Bonny Norton (2000) who investigated

learners' experiences and use of L2 through the use of diaries, observation charts or log books. Such activities can be incorporated in the curriculum for teachers to gain an understanding of their students.

Dörnyei and Kubanyiova (2014) argue that before building up an image of a desired future self, it is important for teachers to create opportunities for the students to 'experience a range of situations involving the L2' (p. 62), which can include providing face-to-face or online intercultural encounters, organising language exchange programmes or study-abroad trips. According to the authors,

[these] experiences are important because they can sow the seeds of future images. An image-seed in this sense is a remembered moment from our history or an encounter that imprints itself in our memory, and it is these pictures that can later aid the construction of fully-fledged desire language selves by serving as useful building blocks. (p. 63)

Undeniably, these accumulated experiences are effective when students have the opportunity to ponder their desired future selves through experiences such as participating in study-abroad trips and communicating with language partners (through face-to-face or virtual communications). Through creating genuine learning communities, students' minds can be engaged in ways that connect with their experience (Fried, 1995). This is similar to taking music students to concerts and to see an expert musician at work (Dörnyei & Kubanyiova, 2014).

Helping students to create, strengthen, substantiate and operationalise the vision (Hadfield & Dörnyei, 2013) may ultimately have a positive motivational impact on their learning experience. To this end, useful instructions and practical

activities to help teachers design and use imagery in the classroom have been published, which include a book by Hadfield and Dörnyei (2013) titled *Theory into practice: Motivation and the ideal self*. Different types of practical classroom activities are provided in this book, including tasks that help students to create a detailed vision of their future possible L2 selves, to offer chances for students to share such a vision, and to help them record their vision. The tasks are largely associated with the Ideal L2 Self, the Ought-to L2 Self and the enjoyment of the L2 learning experience. Classroom activities have been created to create an ideal self-image vision, to map out the goals and plans, and to sustain the vision.

Activities in this book may be used as teaching materials for teachers and as self-reflection tools for intermediate to advanced L2 students who are looking for ways to motivate themselves. Another book, published by Arnold, Puchta, and Rinvold (2007), titled *Imagine that! Mental imagery in the EFL classroom* is a more general book with exercises for visualisation training as well as some skills-based language tasks that involve the use of imagery.

Apart from book-length publications, the journal *Studies in Second Language Learning and Teaching* has published a special issue ‘The role of the imagination in language learning’. Some researchers conducted investigations on students and teachers’ imagination and vision in L2 learning at the classroom level. In particular, Judson and Egan (2013) suggest that students’ imagination can be developed through different ‘learning toolkits’ or ‘cognitive tools’, such as games, drama, play, rhythm and rhyme, stories, jokes and metaphors. Concrete examples of classroom activities, such as the way to use stories and images to introduce grammatical items, were provided.

10.5.3 Developing L2 teachers' possible selves and vision

Study IV revealed that the participants' various selves (their Christian Self and Language Professional Self) underwent transformation as these educators were inspired to change; and as their different selves matured and integrated to different extents, their vision also developed. This could be a constructive insight for teacher educators of undergraduate and various teacher training programmes (e.g. PGCE, CELTA courses and MA TESOL programmes) in that pre- and in-service teachers can understand how their thoughts and behaviours are shaped by the various selves, by their past and present. This is particularly true for in-service teachers, who may feel burdened with both a large amount of materials to be taught and administrative duties. It is when teachers feel frustrated, drained and burned-out, it is all the more important that they re-discover the reason why they went into teaching in the first place, their vision for the work they do so that they can feel proud of calling themselves a 'teacher'. And it is only when teachers have a vision, goal for their vocation will they gain the inner strength to build good rapport with students and inspire the learners as suggested in the previous sub-section.

Different authors who have published on the topic of teacher vision and passion have suggested different ways that teachers can develop their vision and (re)ignite their passion. One way is to reflect upon one's past experiences, which has been advocated by Mitchell and Weber (1999) in their book *Reinventing ourselves as teachers: Beyond nostalgia*. The authors promote the use of different types of images (e.g. photography, written memoirs, movies and video) to understand the different aspects of the teacher self. Teachers are encouraged to engage in what the authors called 'pedagogy of reinvention' (Mitchell & Weber, 1999, p. 8), which involves

creating new images that transform the creator. According to the authors, the term pedagogy of reinvention describes:

a process of making both the immediate and distant pasts usable. It is a process of going back over something in different ways and with new perspectives, of studying one's own experience with the insight and awareness of the present for the purposes of acting on the future. (p. 8)

Such self-reflections are conducive to one's professional growth since re-visiting one's past and knowing where one stands enables one to feel more in control. In doing so, the use of artefacts such as old photographs or yearbooks may help to evoke past memories, such as experiencing difficulty in learning and remembering a teacher who taught them. It is the application of these understandings to the present when teachers recognise the significance of their work.

The use of imagination can also be employed for teacher training programmes and its importance has been emphasised in Guz and Tetiurka's (2013) study, which focus on the role of teacher imagination in conceptualising children as L2 learners. They advocate that teachers should transport their adults' minds into the mind of a young learner. However, before predicting and imagining 'children's possible responses to classroom events' (Guz & Tetiurka, 2013, p. 419), it is vital for student teachers to understand young L2 learners' developmental profiles, their psychological and emotional needs.

Their findings are intriguing as student teachers' conceptualised image of a child as a L2 learner resembles an adult learner, who has long attention span and who can understand abstract grammatical terms. Because of this, two-thirds of the

lesson plans as well as classroom transcripts were found to be less than effective and inappropriate for the learning of young children. Guz and Tetiurka (2013) stress the importance of linking the developmental profile of young learners to actual classroom experiences to ‘ensure that the working image of a child as a second language learner captures both the conceptual and practical aspects of young learners’ instruction’ (p. 435).

In addition, mental rehearsal and even negative imagery may prove to be an effective strategy in enhancing teaching performance. Fletcher (2000, p. 235) gives an account of how imagery techniques could be used to ‘sensitize some novice teachers to the potential of classroom teaching’. The student teachers enhance their ability to assess pupils’ progress and to stimulate their imagination, suggesting that imagery is a possible way to help student teachers to explore the various choices in the educational setting and to understand the complexities of their new roles.

As for negative imagery, it may help create cognitive strategies, especially for situations that are somewhat unpredictable and highly dependent on others (e.g. teaching a disruptive class). This function is similar to the imagery of ‘cognitive general’ in the applied model of imagery use in sport, which refers to the planning of winning strategies in games (Hall, Schmidt, Durand, & Buckolz, 1999). This could be particularly useful for novice teachers who are apprehensive about dealing with a difficult language class. Negative imagery may help them to imagine cognitive plans or strategies to manage different situations. It may also act as a desensitisation procedure (used in clinical psychology) as individuals handle fearful situations or stimuli (Dörnyei & Kubanyiova, 2014).

10.5.4 Insights from the RQM study

As observed in the RQM study, classrooms and L2 learners can be seen as dynamic systems with multiple components interconnected and dynamically interacting. Students can also be viewed as open systems that can be influenced by external components (e.g. social values, family, peers, classroom atmosphere and dynamics, learning materials etc.) and the internal factors (e.g. their motivation, goals, emotions, learning beliefs, Ideal L2 Self etc.). Using the lens of DST, we learn that motivation and learning does not occur in a vacuum, but through a myriad of interconnected system components. In this case, teaching is merely one of the components in the state space, which may not necessarily produce effective learning. Indeed, the dynamics of a system can be shaped by a multitude of agents and elements, some of which are more salient than others (which are known as attractors), although the trajectory in the state space can at times also be affected by a single factor. Such insights may reaffirm what seasoned teachers already know: it is important to understand that the make-up of each system (of learners of L2 classrooms) is unique and emergent. Expressed simply, what motivates one class may not have the same effect with another class of learners. It is therefore vital to identify the multiple dimensions and causes that are influencing a particular learner or a particular class (Mercer, 2013).

Not unlike using the research template of the RQM approach, perhaps teachers could therefore explore what the students' key attractors are, especially for those who show a lack of learning motivation and provide methodological inventions as deemed appropriate. This is supported by Holliday's (1994, p. 161) suggestion that understanding a classroom is 'something which has to be worked through in the situation in which teaching and learning have to take place' (cited in Mercer, 2013).

One way to achieve this is for teachers to conduct ethnographic analysis of the learning contexts and to reflect upon the social, cultural and individual influences that are impacting a specific classroom. Indeed, L2 pedagogy instructions could be informed by teachers' systematic observations of students' mental, emotional, and psychological profiles.

In a recent paper, based on the literature Mercer (2013) has outlined some complexity-informed pedagogy including 'postmethod pedagogy' and 'exploratory practice'. In one of the approaches mentioned, 'postmethod pedagogy' (Kumaravadivelu, 2001, 2006) recommends teachers and learners to work collaboratively: teachers can allow their power in the classroom to be delegated to students, while at the same time view learners as autonomous, active and critical thinkers in the classroom. In this sense, complexity-informed principles do not only benefit teachers' pedagogy but also students' mindsets. Learners may be empowered by the realisation that they too have the power to negotiate a positive learning dynamics as they can jointly create what occurs in the classroom. They can also be equipped from using various self-learning and metacognition strategies.

In line with postmethod pedagogy, the idea that sharing research data with students through what Falout et al. (2013) called 'critical participatory looping' (CPL) can perhaps also help students to reflect upon their own motivation, feelings of competence and personal agency. According to the researchers, disseminating research data with students can act as a 'mediational means of researching, teaching and learning about individual and group motivation that helps put into practice what works' (p. 246).

Another concept that is of relevance here is 'exploratory practice' (Allwright, 1993), particularly in what is known as 'quality of life' (cited in Mercer, 2013).

According to Mercer (2013, p. 384), this pedagogy takes a ‘holistic approach’ in the recognition that one’s personal and professional lives are intertwined. Indeed, from this perspective, L2 learners can be viewed not only as students of a second language, but individuals with different identities (e.g. a daughters or sons of their parents; a sister or a brother to a sibling; a peer to their classmates etc.). Each learner can also be viewed as an open, continually changing system rather than a closed system, one that is impelled by a wide range of factors. It is therefore important to recognise that learners’ time and resources (e.g. energy, memory, attention span) is limited.

Finally, we recall that constant evolutions occur in systems: students who have been assigned to a particular learner archetype could always be transformed. This offers hope for teachers, since as even learners who seemed to be demotivated for long period of time can change. In the same vein, Mercer (2013) emphasises that our understanding of learning, L2 classrooms and learners will ‘never be complete’, and therefore this can ‘guard against our becoming complacent about our learners and our teaching’ (p. 384).

10.6 Future research agenda

10.6.1 Exploring the complex dynamics of L2 learners and teachers

To summarise, for future research using the RQM model, there are several modifications that researchers can make, including conducting classroom observations and examining more than one student associated with each archetype. In addition, researchers can conduct empirical research focusing on the signature dynamics of a particular type of student (e.g. successful, motivated learners). By examining more than one student associated with an archetype, researchers may be

able to identify the commonalities of the attractor states in the same archetype. It will also be interesting to explore learner archetypes that exist in different schools or even in different cultural and socio-economic contexts, and investigate whether universal learner archetypes exist in teachers and students' minds. Interventions can also be conducted to examine whether archetypes can be intentionally 'manipulated'.

Study IV investigated the complex and dynamic nature of the development of vision from a broader perspective with the integration of the CLP Self depicted as a relatively stable construct, in retrospective accounts. It will be intriguing to investigate the same issue in a longitudinal study, exploring the issue at several points during a particular time span. It could be the case that the integration of CLP Self undergoes fluctuations as the structure of the attractor basins changes in time, though only future research will be able to reveal whether this is the case in reality.

To this end, Kubanyiova (2012), in her book *Teacher development in action: Understanding language teachers' conceptual change*, proposes different ways of using complexity theory as a metaphor for language teacher cognition research. These include embracing the spatial and temporal dimensions of teacher change, studying the initial conditions, uncovering the relationships and dynamics within and between systems, and considering the less obvious influences on change, (e.g. the content of a teacher development programme). These suggestions provide a source of ideas on researching the dynamics of CLP Self development. And according to MacIntyre, Dörnyei and Henry (in press), although it is more challenging to apply the DS approach when compared to the traditional research methods, it is a way of perceiving the world and addressing research questions. In their own words, such an approach is 'both "cool" enough to explore in a research project and "hot" enough to inspire new ideas'.

10.6.2 Imagination

Little is known regarding how learners use their imagination or how it can be utilised to facilitate language learning (Ryan & Mercer, 2013); and since only a few possible selves/visionary motivational programmes have been carried out (e.g. Magid, 2011; Munezane, 2013), future research investigators could conduct interventions with an emphasis on imagery. These could examine the effects of the different conditions (e.g. perspectives, frequencies of imagery use, process versus outcome, the use of technology) on L2 motivation. Studies can also be replicated with a control group.

Researchers may explore the dynamic and complex properties of imagery. This area has been ignored in many of the imagery studies in sport psychology due to the underlying assumption that there are optimum ways of visualising to enhance motor performance and arousal. Vision can be seen as a magnet or even as a crowbar (van der Helm, 2009), which is static and constant. A question is whether it is possible that imagery can also be malleable and changing as the circumstances and internal resources of an individual change. Some initial research has revealed dynamic interactions between imagery and other L2-related variables, such as L2 proficiency, language learning behaviour and motivation (You & Chan, in press). Further research in this area may shed light on the dynamics of evolving imagery in L2 use.

10.6.3 Teacher vision

In terms of language teachers' visions, although some research has been done on visionary educational leaders and school principals (e.g. Blumberg & Greenfield, 1986; Yoeli & Berkovich, 2010), substantial empirical work on the construction of

language teachers' selves in their teaching practice is still scarce (Dörnyei & Kubanyiova, 2014), suggesting that this is relatively uncharted territory. As mentioned earlier, recent research has looked at pre-service student primary teachers' use of imagination in conceptualising children as second language learners (Guz & Tetiurka, 2013). Perhaps research can be conducted to explore ways to develop pre-service teachers' imagination in pedagogical planning (e.g. developing both lesson plans and particular learning tasks) and classroom management. Kubanyiova (2013b) also encourages more studies to be conducted on the transition from students to teachers, focusing on how Christians' understand of being 'called to teach' may change over time.

Future research can explore other patterns of CLP vision integration through by quantitative and qualitative studies. Kubanyiova (2013b, p. 89) contends that the most urgent tasks faced by Christian language teacher researchers are to build a systematic, rich portraits of Christian language educators and how they are negotiating their identities under 'the new worldly demands'. At the same time, I suggest that conducting quantitative studies can achieve generalisability in the results. Researchers can also look at *how* the various selves are integrated in the CLP Self System in a larger sample by drawing insights from existing research in self and identity, shedding light onto the interactions of one's religious and professional selves. Finally, as it has been suggested that *L2 learning experience* in Dörnyei's (2005, 2009a) L2 Motivational Self System is 'to some extent less clearly theorised' (Ushioda, 2011, p. 201). Equally, the concept of *experience as a CLP* can also be further examined, exploring how a person's past and present experience help develop his/her possible future CLP selves.

Whether CLPs experience an integrated vision is an important issue since *faith* can be seen as one of the vital aspects in teachers' personal identity. Faith has the power to motivate people (Lepp-Kaethler & Dörnyei, 2013) and give meaning to them, both as individuals and as groups, helping them to explain the stories of their lives (Joseph, 2004). In the same vein, studying teachers' life experience and background are the key elements in understanding who teachers are and their sense of self (Goodson, 2003), which in turn influences their thoughts and behaviours in the classroom. Religious beliefs can be a key catalyst in the development of adaptive images and visions for teachers (Kubanyiova, 2013b). Since there is a close relationship between teachers' personal lives and performance in their professional roles (Ball & Goodson, 1985; Goodson & Hargreaves, 1996), exploring teachers' religious identity along with their professional identity is an important research area, particularly since teachers often serve as moral guides for students (Varghese & Johnston, 2007).

10.7 Conclusion

Using various methodologies, this thesis has investigated how vision, possible selves and dynamic systems theory can be applied to L2 learners and language professionals. Key insights and properties regarding the use of vision and possible selves in L2 learning have been established as follows:

- L2 learners and classrooms can be viewed as dynamic systems that are associated with only a limited number of attractor states or system outcomes, with each being highly unique, individual and deeply influenced by the social and cultural context.

- Possible selves possess slightly different structural characteristics which are reflected in the variability of the structure. Possible selves are multifaceted and complex and they vary according to the life domains concerned (i.e. language-related or faith-related domains). For example, possible L2 selves were found to be language-specific. That is, the English-specific possible selves are separate from the Mandarin-specific possible selves, each with distinct motivational capacity: essentially, possible L2 selves are multidimensional instead of amalgamated. Yet, the Christian and Language Professional Self can be fully integrated as the CLP Self or are even partially integrated according to the development of system trajectories.
- Possible L2 selves are positively associated with sensory styles and imagery capacity, and learners' Ideal L2 Self, in particular, has motivational functions, exerting motivational power.
- The constructs of possible L2 selves undergo development as they emerge and fade away as time passed.

All in all, we can conclude that it is constructive to view L2 learners and teachers as dynamic systems; and among various individual, social and cultural processes that are interacting in the complex dynamic world, vision and possible L2 selves are an indispensable drive behind L2 behaviours and motivation. They are powerful ingredients in developing committed, passionate L2 learners and teachers, people who are captivated by the excitement of language learning, ones who are deeply in love with (and engaged in) what they do, and individuals who refuse to submit to apathy in the face of difficulties. With the accumulating evidence about the power of vision, possible L2 selves and the use of dynamic systems theory, research

in these areas has vast potential benefits for L2 learners, teachers and motivation researchers alike!

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Appendixes

Appendix A – In-depth interview questions for students (Study I)

Background information

- When did you start learning English? How long have you learnt English for?
- Have you always studied in Hong Kong?
- How old are you? What's your mother tongue?

English proficiency

- What are your strengths and weaknesses in the English language? Have you encountered any difficulties in learning reading, listening, writing and speaking in English?
- What are your opinions regarding the Western cultures?
- How do you see your ability and interest in English learning?
- What sort of capabilities do you need to learn good English? Do you think you are equipped with such capabilities?

Strategies and goals

- Do you think it is possible to learn good English? If so, why?
- What are your strategies in learning English both in and outside the classroom? Do you think these strategies are useful? Why do you think so? What impacts do they have?
- What are your current goals in learning English?
- Are there any ultimate meanings in learning English? Why do you have such feelings?
- What type of learner are you? Are you a visual or an auditory learner?

Drawing of a motigraph

- Draw a graph of the course of their English learning motivation, their effort in learning English, likes/dislikes in the language from when they started learning, up to the present time.
- Please explain your motigraph. What are the factors contributing to your motivation in learning the language?
- Do you like learning English?

- Have your thinking or feelings about learning English changed since you started? If yes, when? How? Why?
- Are there any obstacles when you are learning English? If so, what are they? What are the effects of having such obstacles?

Effort

- How much effort have you exerted in learning English?
- Have your efforts yielded any results?

School results

- What were your results like for English exams/tests?
- How do you feel about the results you get?
- Why do you think you have gotten these results? What are the reasons for the results you have obtained? Do you think there are any relationships between your effort, motivation and the results you obtained?

Environment

- Do people (your parents / peers / teachers) affect your motivation in learning English?
- Does the location affect your learning?
- Does the time of the day/week affect your learning?
- How do family pressure / support / expectations affect your motivation or interest in learning English?
- How important is English in the society? Can you give some examples to illustrate your answer?
- What does the society expect of you in terms of English learning?
- How does the importance of other subjects affect your motivation?

Future self-guides

- Do you have a sense of who you would like to become as an English user? In other words, can you see, hear or feel who you would ideally like to become as an English user?
- Does this imagination of who you could become in the future motivate your English learning?
- Do you have a sense of who you ought-to become as an English user? In other words, can you see, hear or feel who you ought to become as an English user?
- Are you afraid of not becoming a successful user of English? Do these feelings/thinking influence your motivation in English learning?

- Have any of your family, relatives, friends, or teachers influenced your thinking or feelings about learning English? If yes, when? How? Why?

Appendix B – Language Orientation Questionnaire (Study II)

Language Orientation Questionnaire

This questionnaire is administered by the School of English Studies at the University of Nottingham. We would like to ask you to help us by answering the following questions concerning foreign language learning. This is not a test so there are no 'right' or 'wrong' answers and you don't even have to write your name on it. We are interested in your personal opinions. Please give your answers sincerely as only this will guarantee the success of the investigation. Thank you very much for your help.

(I) The following section aims at finding out your personal views of the languages you are learning. Although the statements may sound similar, some may apply to you more than some others. We would like to ask you to focus on the details. Please rate these statements based on the scale below:

1 = strongly disagree 2 = disagree 3 neither agree nor disagree
4 = agree 5 = strongly agree

For example, if you like 'hamburgers' a lot, 'spaghetti' not a lot, and 'pizza' not at all, write this:

	Hamburger	Spaghetti	Pizza
I like these types of food.	5	2	1

Please put one (and only one) whole number in each box and don't leave out any of them. Thanks.

		English	Mandarin
1	I often imagine myself speaking these languages as if I were a native speaker of these languages.		
2	I study these languages because close friends of mine think they are important.		
3	I am prepared to expend a lot of effort in learning these languages.		
4	When I think of the future, I can imagine myself using these languages in a variety of ways.		
5	I have to study these languages, because, otherwise, I think my parents will be disappointed with me.		

		English	Mandarin
6	When I am in my language class, I volunteer answers as much as possible.		
7	I can imagine myself being a very competent speaker of these languages.		
8	People around me believe that I must study these languages to be an educated person.		
9	I would like to spend lots of time studying these languages.		
10	I can imagine myself writing e-mails in these languages fluently.		
11	I would like to concentrate on studying these languages more than any other topics.		
12	Studying these languages is important to me in order to gain the approval of my family.		
13	I can imagine myself participating in a debate in these languages.		
14	I consider learning these languages important because the people I respect think that I should do it.		
15	I would like to study these languages even if I were not required to do so.		

II. Now, we will present some statements concerning the way our brains process information. We would like to know to what extent they describe your own cognitive style. There are no right or wrong answers. People differ in their cognition. We would like to ask you to rate these statements based on the scale below:

1 = not at all true 2 = not really true 3 = partly true partly untrue
4 = mostly true 5 = absolutely true

For example, if you like skiing very much, write this:

I like skiing very much.	5
--------------------------	---

16	When the teacher tells me the instructions I understand better.	
17	I understand better by reading instructions than by listening to instructions.	
18	If I wish, I can imagine some things so vividly that they hold my attention as a good movie or story does.	
19	I remember things better if I discuss them with someone.	
20	I remember something better if I write it down.	
21	Sometimes images come to me without the slightest effort.	
22	I use highlighters to help me as I learn.	
23	I prefer to learn by listening to the teacher rather than reading a text.	
24	When I am thinking, I often have visual images rather than thoughts in my mind.	
25	I learn better by reading what the teacher writes on the chalkboard.	
26	I learn better in class when the teacher gives a lecture.	
27	My daydreams are sometimes so vivid I feel as though I actually experience the scene.	
28	I learn more by reading textbooks than by listening to the teacher.	
29	I remember things I have heard in class better than things I have read.	
30	When reading fiction I usually have a vivid mental picture of the scene that has been described.	

III. Finally, please answer these few personal questions so that we can better interpret your previous answers.

31. Please circle which sex you are: boy / girl

32. At what age did you start learning English? _____

33. At what age did you start learning Mandarin? _____

34. Are you taking English lessons outside school? Yes / No

35. Are you taking lessons in Mandarin outside school? Yes / No

36. Have you studied outside Hong Kong (including mainland China)? Yes / No

If so, where and for how long? Location: _____ Duration: _____

37. Your native language is....

Cantonese ☐ Mandarin ☐ English ☐ Others ☐ (Please specify: _____)

38. I would appreciate it if you could write down your last year's final grades in English _____ Mandarin _____

39. I would love to send you the results of this study. If you are interested, please write your e-mail _____ so that I can contact you.

40. Would you like to take part in an interview to discuss the findings of this survey? It should take approximately 45 minutes. If you are happy to do so, please state your name and class in the following. The researcher will be in contact with you.

Name: _____ Class: _____

Thank you again for your time and help!



Appendix C – Language Orientation Questionnaire (Chinese version) (Study II)

外語學習方式

你對學習英語和普通話有甚麼意見？你是如何學習外語的呢？

這問卷調查由英國諾丁漢大學英文系統籌。我們希望你能回答以下有關外語學習的問題，為此項調查提供協助。這問卷並非測驗試題，答案無分對錯，你亦無需填寫姓名。希望你能表達個人意見，你的答案將對我們的調查有莫大的幫助。我們非常感謝你。

I.

以下的題目是關於你對學習英語及普通話的個人意見。請選擇最能貼切描述你個人情況的選項。我們想請你特別注意題目的細節，並按以下等級標示這些句子：

1 = 非常不同意 2 = 不同意 3 = 既不同意也不反對
4 = 同意 5 = 非常同意

例如，假設你很喜歡吃漢堡包，不太喜歡吃意大利麵條，而一點也不喜歡吃意大利薄餅，請這樣填寫：

	漢堡包	意大利麵條	意大利薄餅
我喜歡這種食物。	5	2	1

請在每個方格內填寫一個整數（只須填寫一個），不要漏填。謝謝。

		英語	普通話
1	我經常想像自己可以像說母語一樣說這種語言。		
2	我學習這種語言，因為我的好朋友認為學好這種語言很重要。		
3	我準備很努力地學習這種語言。		

		英語	普通話
4	想到未來，我可以想像到自己能以各種方式運用這種語言。		
5	我一定要學習這種語言，否則我想父母會對我感到失望。		
6	上語文課時，我盡量踴躍答題。		
7	我可以想像到自己能流利地說這種語言。		
8	周圍的人都認為，要成為有教養的人，就得學習這種語言。		
9	我想花很多時間學習這種語言。		
10	我可以想像到自己能用這種語言寫流暢通達的電郵。		
11	相比其他科目，我更想專心學習這種語言。		
12	對我來說，學習這種語言對我獲取家人的認同十分重要。		
13	我可以想像到自己能運用這種語言參與辯論。		
14	我所尊敬的人認為我應該學習這種語言，所以我認為學習這種語言是重要的。		
15	即使沒有人要求，我也希望學習這種語言。		

1 = 非常不同意 2 = 不同意 3 = 既不同意也不反對
4 = 同意 5 = 非常同意

II. 現在，我們會展示一些有關大腦如何處理信息的陳述句子，希望知道這些句子能準確描述你的認知方式到甚麼程度。每個人的認知方式都不盡相同，因此答案無分對錯。請按以下等級標示這些句子：

1 = 完全不正確 2 = 不太正確 3 = 部分正確，部分不正確
4 = 大部分正確 5 = 完全正確

例如，假設你很喜歡滑雪，請這樣填寫：

我非常喜歡滑雪	5
---------	---

16	若老師給予指示，會更能掌握其中的意思。	
17	閱讀指示比聆聽指示更能掌握其中的意思。	
18	我可隨意想像出生動的畫面，這些畫面就像好看的電影或故事一樣，能吸引我的注意力。	
19	與人討論會幫助記憶。	
20	寫下來會幫助記憶。	
21	有時候，腦海裏會自然而然地浮現出影像。	
22	用螢光筆會對學習有幫助。	
23	在學習過程中，相比閱讀課文，我較喜歡聽老師講課。	
24	我習慣使用圖像而非意念思考。	
25	閱讀老師在黑板上寫的東西能幫助我學得更好。	
26	老師講課能幫助我學得更好。	
27	我的白日夢有時很逼真，彷彿親歷其境。	
28	閱讀課本比聽老師講課學得更多。	
29	在課堂上聽到的比所閱讀的更容易記住。	
30	看小說時，腦海常會浮現出小說裡描述的生動場景。	

III. 最後，請回答以下一些有關個人資料的問題，這可幫助我們更有效分析你之前填寫的答案。

31. 請圈出你的性別：男 / 女

32. 你何時開始學英語？_____歲

33. 你何時開始學普通話？_____歲

34. 現在有否報讀校外英語課程？有／沒有

35. 現在有否報讀校外普通話課程？有／沒有

36. 你曾否在香港以外國家／地區進修（包括中國內地）？ 有／沒有

如有的話，進修地點：_____；進修年期：_____（年／月）

37. 你的母語是：

廣東話___ 普通話___ 英語___ 其他___（請註明：_____）

38. 請填寫你去年英語和普通話期終考試的成績：

英語：_____；普通話：_____。

39. 你是否希望知道這次問卷調查的結果？

我 **希望 / 不希望 收到關於這項研究的結果。

（**請刪去不適用者）

如果你想知道結果，請寫下你的電郵地址：_____

40. 你是否願意接受訪問（需時約四十五分鐘），與研究員討論這次問卷調查的結果？如果你希望接受訪問，請寫下姓名及班別，研究員會與你聯絡。

姓名：_____ 班別：_____

再次感謝你的參與！



Appendix D - Post-survey focus group interviews (Study II)

1. Which language, English or Mandarin, do you prefer? What are the reasons?
2. Which language do you want to put more effort into? Can you give some examples as to how you learn these languages outside class?
3. Which language do you want to be better at? English or Mandarin?
4. Do you think your parents and/or teachers have in mind a language (English or Mandarin) that is more important? How will their opinions influence you?
5. Can you see yourselves being fluent in English/Mandarin?
6. Do you use imagery in envisioning who you would like to be as an English/Mandarin speaker/user?

Appendix E – Questionnaire items (Study III)

Ideal L2 Self

- I have a role model to look up to as an ideal English user.
- I imagine/visualise myself being someone who can communicate with others fluently in English.
- I imagine/visualise myself being someone who is a good English writer.
- I imagine/visualise myself reading English texts effectively.

Feared L2 Self

- I am scared that my English standard will decline.
- Because I have experienced some embarrassing situations when I have used English, I feel more motivated to improve the language.
- The fear of losing my knowledge of English motivates me to keep on studying the language.
- I worry about the consequences of not becoming the English user I would like to be.

Feedback on the intervention

- The Ideal Selves Tree helped me to be more motivated in SALL.
- The two language counselling sessions motivated me to do SALL.
- The in-class visualisation practice was useful.
- The Internet websites provided by the teacher were useful.
- The in-class progress report motivated me to do SALL.

Appendix F – Focus group interview questions (Study III)

Possible Selves Intervention

Questions for Focus Groups

FIRST FOCUS GROUP INTERVIEW

The aims of this session:

- to investigate whether students had already developed a future identity as an English learner/user prior to beginning of the course/intervention
- to explore whether students had acquired strategies / motivation to learn English independently before the beginning of the course/intervention

Part 1: Possible L2 selves

IDEAL L2 SELF

- Do you have a sense of who you would like to become as an English speaker/writer? In other words, can you see, hear or feel who you would ideally like to become as an English speaker/writer?
- Can you imagine a clear situation when you are a successful speaker of English/writer of English:
 - Who would you be speaking / writing to?
 - Where would you be speaking / writing?
- What would you be using English for?
- Does this imagination of who you could become in the future motivate your English learning?

OOUGHT-TO L2 SELF

- Do you have a sense of what you ought-to become as an English speaker/writer? In other words, can you see, hear or feel who you ought to become as an English speaker/writer?
- Is there an imaginary person whom you feel you ought-to become as a language learner?

- When you imagine this person, what are the characteristics of him/her?
- How is this affected by the expectations from a significant other/ the society/ Chinese culture? Please explain.

FEARED L2 SELF

- Are you afraid of not becoming a successful user of English?
- Do you think about consequences if you could not become the person/English user you would like to be?
- Do these feelings/thinking influence your motivation in English learning?

Part 2: Attitudes and beliefs towards SALL

- What do you think about learning English independently?
- Do you believe you can learn English independently? Do you think you have the capability to learn on your own effectively without the guidance of a teacher?
- Do you know what you can do (i.e., having learning strategies) to achieve your goals?
- How motivated do you think you are in learning English independently/ beyond classrooms at this stage? Are there any factors influencing your motivation?
- Did you have an action plan to learn English prior to the start of this course?
- What will facilitate your SALL?
- Do you think you would enjoy learning English outside classrooms? Can you give reasons? (Why/ Why not?)

SECOND FOCUS GROUP INTERVIEW

The aims are:

- to investigate whether students have (further) developed a future identity as an English learner / user (i.e. possible L2 selves) towards the end of the intervention;
- whether they have acquired and/or utilised the strategies for the SALL component;
- whether they have developed a desire or motivation to improve their English independently; and
- to explore their views regarding the usefulness of learning activities (e.g. drawing a tree of ideal self, counselling session with the teacher, creating daydream scenarios, and visualisation).

Part I: The development of possible L2 selves

Please use the interview questions used for the first focus group interview

Part II: Feedback on the intervention

- Were you motivated to learn English independently in the SALL component in this course?
 - Can you give some reasons?
- Do you feel that your English has been improved as a result? Do you feel more confident?
- What difficulties did you encounter in the SALL component?
- Were the following learning activities useful?
 - drawing a tree of my ideal self
 - counseling session with the teacher
 - creating daydream scenarios
 - visualization
- Can you visualise who you would like to become as an English user?
- Was it easy for you to visualize/hear yourself in the imagery enhancement practice?
- Do you think you have started to develop a sense of your ideal English image in this course? Did it motivate you to learn English independently?
- Have you acquired/utilised the strategies you need for the SALL component?

Appendix G – Interview questions (Study IV)

Integrated vision of four Christian Language Professionals (CLPs)

Interview Questions

Aims of the interview:

- To explore whether English teachers have a vision of their Christian Language Professional Self;
- To understand the development of their Christian Language Professional Self.

Interview questions

- ***Life story as a Christian and a Language Professional:*** When and how did you become a Christian? When and how did you become a Language Professional?
- ***Views of one's integrated identity:*** How do you see yourself as a Language Professional? Do you think you have an integrated identity as a Language Professional who is also a Christian? Or would you say that you are a Christian who is also a Language Professional?
- ***Ideal CLP Self:*** When you started becoming a Christian/ a Language Professional, did you have any vision as to what type of Christian English educator you would like to be in the future? Do you have Ideal Language Professional Self now? Who would you ideally like to be as a Christian Language Professional?
- ***Ought-to CLP Self:*** Do you think that there are standards which you should reach, that as a Christian, you are expected to reach these standards? Maybe things said by the society, by your pastors, by Christian readings?
- ***Time perspectives:*** As you think about your own identity, who you are as a missionary/English teacher/Christian English teacher, do you think more about your past, your present or your future? How does that affect you in your daily live?
- ***Others:*** Are/were there any factors that helped you along in your path as a Christian English teacher? Do you have any advice for Christian teachers as to how we can live out our identity in the world?
- ***Background information:*** How would you describe yourself as a Christian? What church do you go to?