Chapter One

1 Introduction

When students enter university, lecturers reasonably expect that they bring with them from secondary school clear learning goals and effective learning strategies. Exchanges such as the following, however, suggest that for some tertiary students studying English in Macao this is not the case.

Lecturer	*How did you learn English in secondary school, Jane?*
Student	*I used to learn the meanings of the vocabulary, and also the grammar rules by rote …… so I could get good marks in the test.*
Lecturer	*Why did you learn English then?*
Student	*I don't know. This is a compulsory subject at school …… I guess it may help me to find a good job.*

The student's response in this exchange is typical of responses to these and similar questions by first year tertiary students in Macao. As Jane's English lecturer I wondered why she had come to think that the strategy of rote learning, especially of vocabulary and grammar, might guarantee her a good English test result. I also wondered why, after more than ten years of formal English learning, she did not have a clear purpose for learning English. After studying English for so long, does she think of English merely as a tool for finding a good job, a purely instrumental motivation for learning English?

Thus, this short conversation suggests that Jane, and students like her, have a limited repertoire of language learning strategies and a purely instrumental motivation for

learning English. In addition, they appear to be dependent learners who lack autonomy when it comes to taking responsibility for their own learning. Could Jane's ineffective language learning strategies, compounded by limited motivation and responsibility, be related to her beliefs about the nature of English learning itself? The ineffectual beliefs and low levels of motivation and autonomy suggested by Jane's responses appear to be prevalent among tertiary students learning English in Macao, many of whom appear to lack effective language learning strategies, motivation and responsibility. Many do not learn English successfully. This phenomenon suggests that the attention of English language educators in Macao might usefully be re-directed towards not simply teaching methodology alone but also towards students' learning (Leong & Li, 2011).

To address concerns about the problems experienced by tertiary students learning English in Macao, it is perhaps worth investigating their beliefs about learning English, including their motivation, as well as the relations between their beliefs and the strategies they use to learn English. With this in mind, the study reported in this thesis shifts the focus of attention away from language teaching towards language learning. It foregrounds the importance of students' strategic learning, and investigates the extent to which students' language learning strategies may be influenced by their language learning beliefs. The study is carried out in the Macao region, and is concerned specifically with the factors shaping the English learning beliefs of tertiary students in Macao.

1.1 Research background

Interactions with tertiary students in Macao, such as the one presented in the introduction above, as well as teachers' observation of students' learning behaviours, results in teachers of English generally perceiving them to be dependent learners who

lack motivation and effective autonomous learning strategies. Students' lack of responsibility and passiveness in their learning is often understood as a consequence of the traditional Confucianism of second language instruction, which underpins the teaching of English in Macao at school and university (Shi, 2006).

Concern about the individual learner taking responsibility for their own language learning has been pervasive in the educational research literature (Ellis, 2012; Holec, 1981, 1987; Holec, Little & Richterich, 1996; Nunan, 1998; Pintrich, 1999; Pintrich & Groot, 1990; Rubin, 1975; Tudor, 1996). Thus, learner responsibility, or learner autonomy, in second language learning has become the basis for a considerable body of theory and research.

Autonomy is a composite of learners' abilities, attitudes and dispositions, and is a function of learners' active involvement in their learning and the intersection of choice and responsibility (Dickinson, 1987; Little, 1999; Littlewood, 1999; Oxford, 2003, 2008; Park, 1995; Pemberton, Toogood & Barfield, 2009; Smith, 2001, 2003; Zimmerman, 2002). It plays an important role in shaping responsible and independent learners who are characterised by their use of self-regulated learning strategies. Therefore, to foster learner autonomy, learners must be encouraged to take an active part in making decisions about their learning by means of effective use of language learning strategies (LLS).

Language learning *strategies*, according to Oxford (1990), are specific actions taken by the learner to make learning a language easier, more effective and transferable to new situations. Learning strategies are conscious techniques employed after learning has occurred. The use of language learning strategies involves learners' active participation and coordinated responsibility for learning, and is learnable and

teachable (Oxford, 2008). In addition, the use of language learning strategies has been shown to have a positive impact on language learning achievement (Ho & Hau, 2008). Moreover, self-regulation (Dornyei, 2005; Oxford, 2011; Rose, 2013) is also one of the essential components in the process of learner's autonomous learning. In order to account for self-regulated learning strategies, the Strategic Self-Regulation Model of Language Learning was created (Oxford, 2011). This model covers more of the influential dimensions of language learning, including cognitive, affective, sociocultural and interactive dimensions.

Language learning strategies are characterised as teachable by strategy experts (Cohen, 2005, 2014; Cohen & Maraco, 2013), so teaching about language learning strategies is understood as a crucial means for developing independent learning (Banisaeid & Huang, 2015; Cohen, 1987, 1998, 2011, 2012, 2014; Cohen & Maraco, 2013; El-Dib, 2004; Gao, 2010; Griffiths, 2013; Hsiao & Oxford, 2002; O'Mallay & Chamot, 1990; Oxford, 1990, 2002, 2008, 2011; Rubin, 1987). According to Cohen (2014), the ultimate goal of strategy instruction is to promote learner autonomy and learner self-regulation by allowing students to choose their own strategies. He also suggests some effective frameworks, practical approaches and online programmes of strategy instruction for teachers working with learners of varying language backgrounds and proficiency.

Students' learning behaviour, including their use of learning strategies, is shaped by their *beliefs* about language learning (Cotterall, 1999; Davis 2003; Gan, Humphreys &Hamp-Lyons, 2004; Nation, 2001; Oxford, 1990; Park, 1995; Yang, 1992, 1999). The term 'belief' is a synonym for a preconceived notion, myth, or even misconception. Beliefs about language learning are defined as the set of opinions each language learner holds about various aspects of learning a language (Horwitz, 1987, 1988).

Students bring different sets of beliefs about language learning to the classroom, and those preconceived beliefs can guide their strategy choice in language learning. Inappropriate or negative preconceived beliefs about language learning have been found to underpin student resistance to learning a language (Horwitz, 1987; McDonough, 1995; Victori & Lockhar, 1995). Under the influence of inappropriate beliefs, students are unlikely to be motivated or to apply more effective language learning strategies, while at the same time, their language anxiety increases, as well as their reluctance to study, practice, or learn the target language (Horwitz, 1988; Mantle-Bromley, 1995; Peacock, 1999; Sawir, 2005). Hence, it may be useful to investigate the relationship between Macao tertiary students' beliefs about language learning and the strategies they use to learn language as a means of improving English language outcomes in Macao. Understanding the relation between Macao tertiary students' beliefs about language learning and their language learning strategy use may, for example, assist teachers to enhance the learning-teaching process as well as to nurture more successful and self-directed language learners in the long term.

1.2 Research context

To facilitate a better understanding about the relations between Macao students' beliefs and strategy use in English learning, a clear overview of the research context, that is, the teaching context, the learning context as well as the social context of Macao, has to be presented. This section introduces the research context for this study in terms of the status of English in Macao, English as a medium of instruction in Macao, English education system in Macao and the learning characteristics common to Chinese students, as well as their unsatisfactory English learning outcomes.

1.2.1 The status of English in Macao

Macao is a Special Administrative Region of the People's Republic of China (PRC). Before the handover to China in 1999, it was a Portuguese colony. Unlike other former colonies of Portugal, for political reasons Portuguese remains one of the official languages in Macao, although Portuguese is only used by a minority of Macanese (Vong, 2008) and Chinese (Cantonese) is the medium of everyday communication. According to the 1987 Sino-Portuguese Joint Declaration, Annex Section VII (The Macau Handover Ceremony Coordination Office, 1987) and Article 9 of Macao Basic Law (Macao Basic Law, 1998), after the return of sovereignty to China both Chinese and Portuguese will continue to be used officially for at least fifty years.

While English is not recognised officially in Macao, it nevertheless is the commercial language. Since 2002 the expansion of the gaming industry has attracted many investors from the west who are mainly English speakers, and thus the status of English in Macao is gradually changing. During this time many casinos and hotel resorts, including Sands Macao, Wynn Resorts, MGM Las Vegas and Crown Casino, have been built. In addition, the gaming industry boom has benefited the tourism, convention and exhibition, catering and retailing industries, each of which demand a labour force made up mostly of management positions, largely filled by employees from English-speaking countries (Ip, 2005). With the influx of international investment, local workers in Macao are required to improve their English language ability in order to communicate with foreign colleagues and to compete with foreigners for employment (Lam, 2007). As a result, there are many requests for English intensive courses by students and workers who believe English proficiency

will offer them improved career opportunities. Thus, although English does not have a *de jure* official status, it enjoys a *de facto* status in Macao (Moody, 2008).

As the status of English increases, Macao students are faced with a dilemma about which foreign language is the most important, Portuguese or English. Macao students are required to take English language in schools (Lo, 2004; Vong, 2008) but many Macao government positions, seen as ideal jobs with good salaries and benefits, require applicants to be competent in Portuguese rather than English. Macao students, therefore, experience a conflict between the compulsory learning of English and its uneven status in Macao society. This dilemma might limit students' enthusiasm for learning English, and lead them to experience less intrinsic motivation to learn English (Young, 2009). In addition, English, for many students in Macao, is only one of the subjects they must pass in school examinations in the short term but it is not always perceived as a useful second language to be learnt strategically to achieve long-term goals. In summary, the increasing status of English in Macao does draw students' attention to the importance of this language for study or employment, but English may not be so necessary for daily use, resulting in students exhibiting less resolve to learn English, which to an extent is unhelpful for the promotion of strategic learning (Banisaeid & Huang, 2015). Thus, Macao students tend not to have clear English learning goals due to the influence of Macao society, Macao schools, and their own motivational beliefs about English learning.

1.2.2 The medium of instruction in the Macao education system

In Macao the political background influences not only the complicated language use in Macao society but also the complicated approach to the medium of instruction used

in the Macao education system. In a minority of government-run schools Portuguese is the compulsory teaching medium in order to maintain Portuguese language and culture following the handover to mainland China. There are also some English-medium private schools to meet demand from local and foreign students and their parents, where all subjects are taught in English except Chinese literature. Apart from the government-run schools and the English-medium schools, a majority of non-tertiary private schools in Macao are Chinese-medium schools where the medium of instruction is Chinese except the English subject.

According to a 2010/2011 Education Survey (Statistics and Census Service Macao SAR Government, 2012), of the 106 schools in Macao, 4 (3.8%) are Portuguese-medium schools, 14 (13.2%) are English-medium schools, while 88 (83%) are Chinese-medium schools. Hence, Chinese remains the main medium of instruction while English maintains its status as a foreign language in the Macao education system.

Even though English does not have *de jure* official status in Macao, under Law No. 11/91/M (Education and Youth Affairs Bureau, 1991), English is taught as a compulsory foreign language from primary school to senior secondary school. In non-tertiary schools the teaching of General English dominates; this includes instruction in the four macro language skills (listening, speaking, reading and writing) as well as knowledge about language (grammar, vocabulary and pronunciation). Almost all Macao students have some English knowledge and skills but their proficiency levels vary widely (Young, 2009) because Macao has had neither a unified school curriculum nor a bilingual education policy (Young, 2011).

Bilingual education refers to the use of both the first language and the target language in teaching. Three types of bilingual education have been identified: transitional bilingual education, maintenance bilingual education, and immersion bilingual education (Yang, 2011). In transitional bilingual education, students received some amount of first language instruction so that they do not fall behind in their literacy or content learning as they are acquiring the target language. In maintenance bilingual education, students learn literacy and content areas in their first language when they are taught the target language. However, their transition to instruction in the target language is more gradual than in transitional bilingual education, and they continue to receive instruction in their first language throughout elementary school. In immersion bilingual education, only the target language is used to carry on the teaching (Baker, 2011; Yang, 2011).

In Macao, maintenance bilingual education is more prevalent in Chinese-medium schools even though the effectiveness of immersion bilingual education in Macao is increasingly recognised (Ieong & Lau, 2011). In addition, in the context of maintenance bilingual education, the medium of instruction is slightly different in Chinese-medium schools. Because of the government's language policy, Chinese remains an official language while English is considered a foreign language. In Chinese-medium schools, English is used mainly in English classes. Moreover, the non-uniform design of language curriculum in secondary schools also causes the asynchronous development of maintenance bilingual education in schools. Among the Chinese-medium schools in Macao, English may only be partially used as the medium of instruction in the English classrooms in some schools, while English may already be the full medium of instruction in others. As a result, the standard of students'

English varies overwhelmingly, which can be clearly observed in first year tertiary classrooms (Botha, 2013).

The policy of the instructional medium is not the only cause of variation in students' English level; it also brings about the gap that needs to be bridged between the English learning context in secondary schools and in universities. According to the Macao Higher Education Database, 2009/2010 (Tertiary Education Services Office, 2011), 76.9% of undergraduates indicate that their tertiary institutions are English-medium where all academic subjects are taught in English only. As a result, there is a big gap between the English proficiency level of local students, especially those who graduate from the Chinese-medium secondary schools, such as the sample students in this study, and the English language requirements of the local tertiary institutions (Bray, Butler, Hui, Kwo, & Mang, 2002).

1.2.3 Lack of unity in the English education system in Macao

Although English language is a compulsory subject from primary school to high school in Macao, students are not as competent in English as students in equivalent Asian contexts (Alexandra, 2011; Berlie, 1999; Blogmacau, 2009; Hao, 2005; Leung, 2011; Morrison & Tang 2002; Young, 2009). In the post-colonial period Macao has lagged far behind other Asian regions such as Hong Kong, Singapore or India, in terms of its language policy and English education (Bray & Koo, 2004; Das, 1990; Hong, 1990). In fact, Berlie (1999) argues that the English proficiency of Macao students has declined because of a 'loose' system of education and an education policy described as *laissez-faire* (Yee, 1990, Tang & Morrison, 1998). This 'loose' education system in Macao leads to the lack of clear goals for the teaching and learning of English (Berlie, 1999; Bray, 2001; Moody, 2008; Young, 2009), a fact

which arguably greatly confuses the English learning goals and strategy use of Macao students. The lack of uniformity in the system also leads to a big gap between schools and universities in terms of English curriculum design (Fan & Ho, 2012; Vong & Wu, 2010), making it difficult for students transitioning from school to university to adapt, and weakening their learning motivation over the long term. Thus, a complete and systematic English education policy should first be put in place across the school years, beginning with kindergarten or primary school (Alexandra, 2011).

Encouragingly, the Macao government will implement a common university examination for all high school graduates in 2017 in order to relieve students from the stress of sitting multiple entrance examinations at different universities. Although this is not yet a formal uniform examination to assess all high school graduates in Macao under a uniform education system, this step represents a pro-active start towards the goal of education reform.

1.2.4 Common learning characteristics of Chinese students

Chinese students have been described as passive in class, lacking in critical thinking and obedient to authority (Atkinson, 1997; Ballard & Clanchy, 1991; Fox, 1994; Gan, 2009; Kumaravadivelu, 2003; Lantolf, 2000; Moket al, 2007; Wu & Singh, 2004). The reason given for the prevalence of this learning style among Chinese students is that from kindergarten they have been told that a good student should be a quiet listener in class; quiet listening is a sign of respect for teachers. As a result, many Chinese students grow used to being passive in the learning process and rely very much on their teachers for all their learning, resulting in a low level of learner autonomy.

Evidence for Chinese students' lack of awareness, or a different understanding, of learner responsibility and autonomy from students of other cultures during the learning process is provided in a series of studies. For example, Shi (2006) surveyed 400 Chinese students from Grade 6 to 10 about their attitudes towards teachers. According to these students, good teachers should provide clear and comprehensive notes and improve students' language skills; more importantly, good teachers should help students pass exams. In a survey conducted by Chan, Spratt and Humphreys (2002), 508 undergraduates at the Hong Kong Polytechnic University responded to a questionnaire about autonomous English learning. The survey responses indicated that most students thought that teachers should be the dominant figures in the class and that teachers should be responsible for choosing learning materials (81%), for deciding what should be learnt next (71.6%), for choosing what activities to use (71.4%) and for deciding the objectives for learning English (70.5%). Some respondents also admitted that they had problems identifying and determining what they needed to learn, how to learn it or in what order.

Chinese students, moreover, have also been shown to rely heavily on memorising as a learning strategy (Carson, 1992; Connor, 1996) because they perceive memorising as an effective strategy for passing exams safely. One-third of the Chinese respondents in Shi's (2006) study, for example, indicated that their purpose for English learning was to pass exams. Kember and Gow (1991) found that Hong Kong students generally favoured a narrow approach to learning which emphasised the 'understand-memorise-understand-memorise' pattern of learning. Similarly, Biggs (1992) and Young (2006, 2008, 2009), respectively, provide further proof of Hong Kong and Macao tertiary students' reliance on a superficial learning approach, in which a student learns only enough to just pass the assessment and to fulfill the

minimum requirements of a tertiary learning programme (Biggs & Tang 2007). Macao students, in particular, have been shown to be mainly instrumentally motivated (Young 2009); in other words, they believe that learning English is for passing exams and having a better career future.

Although memorising as a strategy is a very commendable learning skill for achieving some specific purposes, such as passing examinations, overreliance on memorising should not be encouraged in strategic learning. Furthermore, a majority of Chinese students cannot distinguish between memory strategies and rote-memorisation (Hong-Nam & Leavell, 2006). This same narrow use of memorisation as a language learning strategy among Macao students simultaneously downgrades its effectiveness.

In addition, because of earlier learning experiences, Chinese students have been found to dismiss participating in group work, debates and other interactive activities as not useful or effective for learning English (Rochecouste, Oliver, & Mulligan, 2012), even though these interactive classroom activities are crucial for improving communicative competence.

As the above studies reveal, a passive, unsophisticated and superficial approach to learning is pervasive among Chinese students, including Chinese students in Macao. These students lack intrinsic learning motivation beyond the classroom because they think that learning can only be achieved inside classrooms under the supervision of teachers. They fail to be strategic learners because they appear rely too much on their teachers and are not willing, or do not even know how, to share the learning responsibility.

1.2.5 Macao students' English learning approach

Students' approach towards the learning process is a combination of motivation and the strategies that they adopt during the learning process, such as deep and surface approaches (Aharony, 2006), terms first coined by Marton and Säljö (1976). Students' selection of a deep or surface learning approach reflects both the students' personal tendencies and the students' interaction with their learning environment (Allinson, 1992; Biggs, 1993). It is also apparent that particular strategies may be culturally more appropriate, and therefore preferred, or it may be that the educational experience of students leads them to prefer some strategies over others.

Students' selection of a learning approach relies on both student factors and the teaching context. Supporting this view, Hargett and his partners (Hargett, Bolen, & Hall, 1994) note that when the learning environment places emphasis on the evaluation of high grades, students tend to adopt the surface approach. In addition, students' choice of one learning strategy over another impacts on and formulates the actual learning process, and in many ways 'predicts' its future products (Aharony, 2006).

In Macao, surface approaches, such as rote learning, are prevalent among tertiary students learning English (Young, 2008). Young found that Macao students' learning was characterised by rote learning and trying to progress without failing. She also points out that Macao tertiary students are very extrinsically motivated, and their learning strategy use is very simplistic with the common learning goal being to pass the examination (Young, 2011). These study results are not surprising because Morrison (2002) had reported the risk of Macao's testing-driven curriculum, under which many rote-learners might be shaped. Morrison (2002, p. 293) mentioned that "Schools in Macau are wedded to testing and to the fact-driven curriculum that testing

supports." Morrison indicates that Macao students depend on testing because of high school graduation and university entrance assessment. The test-driven assessment system is emphasised overwhelmingly, and the result of this vicious cycle has been documented (Macao New Chinese Youth Association, 2011).

1.2.6 The unsatisfactory English learning outcomes of Macao tertiary students

The lack of unity in the English education system in Macao, as discussed in Section 1.2.3, and the common learning characteristics of Macao students, as reviewed in Section 1.2.4, have been identified as contributing to Macao students' unsatisfactory English proficiency outcomes. Recent research by the Macao New Chinese Youth Association (2011), which aimed to investigate the English level of the Macao tertiary students, provided further evidence of this phenomenon. The research findings indicated that among the 1,727 questionnaire survey participants aged between 18 to 24 years old, 78.4% of them self-reported that their English competence was average or below average. Moreover, a further 200 survey participants were randomly invited to take part in the IELTS, and the results showed that 63% of the participants achieved 5.5 or below 5.5 on average, which according to the official IELTS score system (IELTS, n.d.) indicated that Macao tertiary students were mostly modest or limited English users. Furthermore, this research also mentioned that students' self-evaluation of their own English leaning corresponded positively to their IELTS results, and so students' self-evaluation of their own English learning to a large extent reflected their actual English proficiency.

The average IELTS score of 5.5 may be acceptable for a general EFL student to learn English. However, this result is not sufficient for the sample students who are

studying at an English-medium university where English is used not simply in the English classroom but also as a medium of instruction in other academic subjects, as pointed out by Macao tertiary students in Section 1.2.2. In fact, the institutional policy or regulations of English-medium universities overseas generally set the minimum entrance requirement for study at "IELTS 6.0", or equivalent, for recruiting new undergraduates (Hughes, 2008) to guarantee students' language competence. This helps explain why tertiary students in Macao identify themselves as having low English proficiency, even though their IELTS results meet the average level.

1.3 Aims of the study

Students' beliefs about language learning, and their consequent selection of language learning strategies, have been shown in earlier studies (Gao, 2010; Park, 1995; Yang, 1992) to have had a measurable impact on language proficiency. For this reason, it is arguably worthwhile to conduct similar research in Macao as a means of understanding better the unsatisfactory English proficiency of Macao students, Furthermore, to align with the Macao government's ten-year (2011-2020) lifelong learning plan, this study aims to contribute to the promotion of Macao tertiary students' learning autonomy in the context of learning English and, as a result, to enhance their English language proficiency by exploring Macao tertiary students' beliefs about learning English, their use of language learning strategies, and the relations between them.

1.4 The significance of the study

The study shows its significance by extending, beyond previous studies, knowledge about Macao tertiary students' beliefs and strategy use, as well as the relations between them, in English learning. The findings can also be used to enhance pedagogical

practice in Macao as well as in other similar EFL contexts, and the design of EFL English programmes for international students in western countries.

In order to produce more strategic and proficient students in Macao in the long term, this study extends previous quantitative studies of similar EFL English contexts (Yang, 1992; Park, 1995), using both quantitative and qualitative phases, an approach not used in Macao before, to elicit more potential reasons for tertiary students' learning beliefs and strategy choices as well as their relations, in order to understand more about the cause of Macao students' unsuccessful English learning and also whether this situation mirrors similar situations in other EFL English contexts such as Japan, Taiwan, Korea and mainland China

Moreover, this study will contribute to bridging the gap between theory and actual pedagogical practice in Macao English language education. Research by local scholars in Macao (Davis, 2003; Young, 2006) has summarised some common beliefs and attitudes of Macao students' English learning but their findings have not been further employed to contribute to English language education in Macao. For this reason, the present study is designed to help transform previous research findings into pedagogical practice in Macao, for example, by engaging students in more English classroom activities that demonstrate strategy use explicitly, and simultaneously limiting inappropriate learning beliefs, which helping to promote a more diversified selection of learning strategies as well.

The results of this study can also be used by higher education institutions in the west, such as in Australia, the UK and the US, who want to design tailored English programmes for international students coming from EFL contexts similar to that of Macao. As reported in the literature, the unsatisfactory English language proficiency of international students in western higher education institutions remains a concern in

relation to their use of language learning strategies (Murray, 2012; Rochecouste, Oliver, & Mulligan, 2012). This concern cannot be overlooked because Asian students make up the largest group of international students enrolled in institutions in these English-speaking countries (Kell & Vogl, 2012). The study will also help explain the underlying factors of the relations between learning beliefs held by EFL students and the learning strategies they adopt. By understanding something of EFL students' learning, especially of their beliefs and strategy use, the universities may find that simply one kind of unified English language course is insufficient for international EFL students from different English learning backgrounds. In addition to the main language courses, supplementary classes or activities may be offered to help international students' adapt to English learning in terms of, for example, the addition of explicit strategy instruction classes, seminars introducing English culture and English Corners for improving social skills and communication. Although the findings of this study may not be representative of all Asian students, they will provide helpful information for western universities designing English language provision and assessment for international students.

1.5 The research questions

Students' beliefs about language learning, and their consequent selection of language learning strategies, have been shown in earlier studies (Gao, 2010; Park, 1995; Yang, 1992) to have had a measurable impact on language proficiency. For this reason, it is arguably worthwhile to conduct similar research in Macao as a means of understanding better the unsatisfactory English proficiency of Macao students. To this end, this study will address the following three research questions:

1. What *beliefs* about English learning are commonly held by tertiary-level EFL students in Macao?

2. What English learning *strategies* are commonly used by tertiary-level EFL students in Macao?

3. What are the relations between Macao tertiary-level EFL students' *beliefs* about the learning of English, and the *strategies* they use to learn English?

1.6 Research approach

A mixed method approach with an explanatory sequential design, that is, applying a quantitative approach first and then followed by a qualitative approach within the same study, is adopted in this research to investigate the complex array of Macao students' English learning beliefs, their strategy use in learning English, and the relations between them. The quantitative phase will be based on a questionnaire survey to be completed by students and the qualitative phase will be based on student and lecturer interviews.

The analysis of student responses to the questionnaire survey provides more information about the learning beliefs of Macao students learning English, and the strategies they select to learn English. Extending the statistical analysis to correlate the findings for beliefs and for strategy use provides information about the relations between student beliefs and their strategy use. The correlational results gained during the quantitative phase of the study are explained by the data derived from the interviews with students and lecturers in the qualitative phase. This mixed method approach applies a methodology which draws on a questionnaire-based survey, as well as interviews with students and lecturers in order to enrich and explain the questionnaire survey results using the words of the participants.

1.7 Organisation of the chapters

This study on which this thesis is based has been designed to build knowledge to improve English teaching and English language outcomes in Macao tertiary contexts. This has involved a staged process, which is reflected in the organisation of the thesis.

Chapter 1 has introduced the study, and outlines the research background and the research context including the status of English in Macao, the medium of instruction in secondary and tertiary education in Macao, the English education system in Macao, and Macao students' English learning This chapter also presents the aims and the significance of the study, the research questions to be addressed and previews the research approach to be employed in the study.

In Chapter 2, literature relevant to the study and its design is reviewed. The literature review focuses on language learning strategies and beliefs, and includes definitions, classifications and inventories of these related terms. Moreover, the 3P model used to demonstrate the potential relations between students' beliefs and strategy use in learning English is reviewed in order to have a better understanding of Macao students' learning processes. Finally, a conceptual framework to helps operationalise the whole research design of this study is established.

Chapter 3 discusses the design decisions that underpin the explanatory mixed method approach adopted in this research. In this mixed method study, questionnaire-based surveys and face-to-face interviews were conducted using three instruments: a Personal Background Information Questionnaire (PBI), Strategy Inventory for Language Learning (SILL) and Beliefs About Language Learning Inventory (BALLI). Chapter 3 will also review the pilot study, as well as the participants and the procedures used for data collection and analysis.

Chapter 4 presents the quantitative results of the questionnaire survey, and the qualitative findings of the two open-ended questions of the questionnaire survey and the interviews. In this chapter, the three research questions of this study are addressed following the order of the analytical procedures:

(1) Analysis of the responses to the PBI, the BALLI and the SILL;

(2) Analysis of the two open-ended questionnaire items and the interview findings;

(3) Correlation analysis of the responses to the BALLI and the SILL

The results of the correlation analysis are derived from two rounds of factor analysis in order to identify as rigorously as possible the relations between Macao tertiary students' beliefs about language learning and the strategies they use to learn English.

Chapter 5 discusses the study results in terms of Macao students' beliefs and strategy use in learning English as well as the relations between them. It explains how these two phenomena and the relations between them influence English teaching and learning in Macao. This chapter also compares the research results in this study with others from similar research contexts, and infers some possible effectual approaches for current English language education in Macao on the basis of the correlational results.

Chapter 6 concludes the thesis with recommendations for improving English teaching in Macao in terms of teaching methodology, and the development of authentic communicative classroom environments, in order to modify Macao tertiary students' unproductive beliefs about English learning and to encourage their use of productive language learning strategies. This chapter also discusses the limitations of this study in relation to the data collection tools, the design of the data collection, and the extent to which findings from the study can be generalised. This chapter finally opens up an area for future research in terms of the interlocking relations among psychological

factors, environmental factors and strategy use in learning English (Oxford, 2011), by means of more refined data collection tools and more effective design of the data collection process.

Chapter Two

2 Review of the Literature

2.1 Introduction

The most significant changes in the field of language research and teaching since the 1970s have been marked by a clear recognition of the role of learning as a critical component in the process of teaching and learning a language, with an acceptance that teaching and learning are inseparable from each other and that language teachers need to attach importance not only to the teaching of the target language but also to the learning process. With this in mind, the study reported in this thesis is concerned more with students' language learning strategies (LLS), the beliefs they hold about language or language learning relate to each other.

This chapter reviews the literature on language learning strategies and beliefs in terms of their definitions, classifications and the use of these concepts in prior studies. It also introduces a three-stage model for relating the two concepts, language learning beliefs and language learning strategies, in terms of students' English language learning. Moreover, Macao students' approaches to learning English are also investigated in this chapter, as a means of examining further how the relations between beliefs and strategy use shape their potential language learning outcomes. Finally, this chapter shows how these complementary concepts are integrated in an overarching conceptual framework on which the study is based.

2.2 Language learning strategies

Studies of language learning strategies (LLS) were first undertaken in the 1970s in response to concerns about what it means to be a good language learner. Certain

universally useful strategies were found to characterise successful language learners, and it was believed that learning strategies employed by successful language learners could be learnt by less successful language learners (Grenfell, 2007; Naiman, Frohich, Stern, & Todesco, 1978; Rubin, 1975; Stern, 1975). In the last three decades, language learning strategies have been studied on the basis of the assumption that language learning success is related to learning strategy use (Anderson, 2005; Chamot, 2001, 2004; Cohen, 1998; Ellis, 1994, 2004; Gao, 2010; Hurd & Lewis, 2008; Macaro, 2006; Oxford, 1989, 1993, 1996, 2011; Wu, 2008; Zhang, 2003). Furthermore, teaching students how to learn independently plays a crucial role in the learning-teaching process (Chamot & Kupper, 1989; Cohen, 1987; Lessard-Clouston, 1997; Oxford & Leaver, 1996; Rivera-Mills & Plonsky, 2007; Wenden, 1992) because perceptive language learners are aware of and use appropriate strategies for learning and communicating in a second or foreign language (Anderson, 2005). Even though research into LLS has been conducted for almost thirty years, the question of what constitutes LLS remains controversial (Cohen & Maraco, 2013; Dörnyei, 2005; Rose, 2012; Tseng et al., 2006; Woodrow, 2005). In order to clarify what is meant by LLS, this section reviews the definitions, classifications, previous studies and the measurement inventory related to LLS.

2.2.1 Definitions

Since the 1970s various definitions of language learning strategies (LLS) have emerged. Although nearly a quarter of a century has passed, the language learning strategy field continues to be characterised as fuzzy and without consensus (Griffiths, 2004, 2013; O'Malley, Chamot, Stewner-Manzanares, Kupper & Russo, 1985; Oxford, 1990, 2011). In the face of disagreement about definitions of LLS, there have been ongoing attempts to define this term more effectively in order to make it acceptable in the

research field. This section reviews the definitions of LLS in terms of three main time periods.

During the 1970s and 1980s, the earliest group of researchers including Bialystok (1978), Rubin (1987), Wenden (1987) and Chamot (1987) made their contributions to the very general definitions of LLS and then started to make the definitions more specific and purposive. LLS were first defined by Bialystok and Rubin. Bialystok (1978, p. 71) describes language learning strategies as an "optional means for exploiting available information to improve competence in a second language", while Rubin (1987, p. 23) defines learning strategies as "those which contribute to the development of the language system that the learner constructs and affects learning directly." These two definitions concentrate on the relation between LLS and language learning but are too general and do not explicitly reflect the purpose for using the learning strategies. As Wu (2008) points out, the "optional means" in Bialystok's definition was too ambiguous and might cause misunderstanding, while "improve competence in a second language" as in Bialystok's definition focuses on how learners could be more proficient learners instead of on how they might learn more effectively and easily.

Following these criticisms of the original definitions of LLS by Bialystok and Rubin, more definitions have been provided. Wenden (1987a, p. 6), for example, defines LLS as "language learning behaviors learners actually engage in to learn and regulate the learning of a second language", while similarly, Chamot defines LLS as "techniques, approaches, or deliberate actions that students take in order to facilitate the learning and recall of both linguistic and content area information" (1987, p. 71). Wenden's and Chamot's definitions of LLS mark the shift from general and ambiguous definitions to more specific and purposive ones. This shift also introduces the idea

that strategic learners are actually active participants in the whole strategic learning process.

In the 1990s, the definitions of LLS by Oxford (1990), Cohen (1998) and O'Malley and Chamot (1990) could be seen to be more fit for purpose in relation to the affective, cognitive and metacognitive use of LLS. For example, Oxford (1990, p. 8) states that "learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations", while L2 learning strategies were also defined as any strategies related to the L2, including strategies for learning or using the L2 (Cohen, 1998). Moreover, it was argued that L2 learning strategies could help learners improve their own perception, reception, storage, retention, and retrieval of language information (O'Malley & Chamot 1990). The definitions of LLS in the 1990s show that researchers in that time became increasingly concerned with managing language learners' affect, cognition and metacognition in language learning. Researchers were attempting to introduce student choice and the effective use of LLS not only as a means of achieving more efficient and easier learning processes for learners, but also for developing cognitive skills, such as repeated practising, analysing, translating and summarising the target language, and metacognitive abilities, such as overviewing or paying attention to one's learning, arranging or planning one's learning, and evaluating one's learning.

Since the dawn of the 21st century, language learning strategies have tended to be defined in a more comprehensive way with clearer descriptions of their functions, purposes and characteristics. During this period, researchers (Anderson, 2005; Chamot, 2011; Cohen, 2012; Hall, 2001; Hsiao and Oxford, 2002; Oxford, 2002, 2011) have made attempts to revise past definitions of LLS, including their own, by

targeting the autonomous and self-directed functions of strategic language learning. For example, Hall (2001, p. 92) argues that "learning strategies are goal-directed actions that are used by learners to mediate their own learning." The definitions of LLS by Wenden (1987a) and Oxford (1990) were further refined by Hsiao and Oxford (2002). In addition to the fundamental elements and characteristics of LLS, they also considered how LLS helped to promote learner autonomy and self-regulation. Hsiao and Oxford (2002, p. 372) argue that "in sum, strategies are the L2 learner's tool kit for active, conscious, purposeful, and attentive learning, and they pave the way toward greater proficiency, learner autonomy, and self-regulation." Definitions by Wenden (1987a) and Chamot (1987) were also developed by Anderson (2005, p. 757), who describes strategies as "the conscious actions that learners take to improve their language learning." According to Anderson, strategies are observable actions and language learners can actively select and use strategies. This definition challenges those of Ellis (1986) and Griffiths (2004, p. 11), who both argue that language strategies are difficult to observe directly because of the uncertainty about what they are. Recently, Chamot (2011, p. 29) defined learning strategies as:

> … thoughts and actions used by students to assist their own learning; they are techniques for accomplishing specific tasks. Learning strategies are usually explicit, conscious, and goal-driven, especially when learners are in the process of trying out a new strategy.

Around the same time, Oxford (2011) provides her latest definition of L2 learning strategies "as deliberate, goal-directed attempts to manage and control efforts to learn the L2" (2011, p. 12). Her latest definition of LLS particularly emphasises a broader category of meta-strategies that control the affective dimension and the social

dimension of the learners instead of simply the control the cognitive dimension. This understanding of LLS resonates with Cohen (2012, p. 136) who defines them as:

> … thoughts and actions, consciously chosen and operationalised by language learners, to assist them in carrying out a multiplicity of tasks from the very onset of learning to the most advanced level of target-language performance.

Following Oxford (2011) and Cohen (2012), Griffiths (2013) also provides a definition of language learning strategies as "activities consciously chosen by learners for the purpose of regulating their own language learning" (2013, p. 15), which, according to Griffiths & Oxford (2014), is one of the simplest definitions and it touches the heart of the matter. All the recent definitions of LLS provide evidence of a consensus among researchers (Chamot, 2011; Cohen, 2012; Griffiths, 2013; Oxford, 2011) of the value of autonomous and self-directed LLS which assist learners to consciously manage and operationalise language learning tasks. They also indicate that LLS are explicit and teachable actions, which imply that the teaching of LLS is feasible and can be effective in a language classroom.

2.2.2 Classifications

Learning strategies that language learners employ in the process of learning a new language have been identified and described by researchers, who believe that identifying what effective learners do to learn a second or foreign language can benefit low-achieving learners. Consequently, these strategies have been classified by many working in the field of language learning (Brown, 2000; Cohen, 2014; Dörnyei, 2005; O'Malley et al., 1985a; O'Malley & Chamot, 1995; Oxford, 1990, 2011; Rubin, 1981, 1987). These classifications have not only helped to categorise strategies and to link

them to a variety of cognitive processing phases during the language learning process, but have also assisted in creating instructional frameworks of practical use to teachers.

Two kinds of learning strategies were identified by one of the earliest LLS researchers, Rubin (1981): those which contributed directly to learning and those which contributed indirectly to learning. Direct learning strategies include clarification, verification, monitoring, memorisation, guessing/inductive reasoning, deductive reasoning, and practice. Indirect strategies include creating practice opportunities and using production tricks.

Direct and indirect strategies were later synthesised by Rubin (1987) into a typology of three types of strategies: learning strategies, including the cognitive and metacognitive strategies; communication strategies, emphasising the process of communication through conversation; and social strategies, involving activities in which learners are given opportunities, such as group work discussion, to practise new knowledge with other students. In Rubin's taxonomy, learning strategies contribute directly to the development of knowledge about and use of the language system, while communication strategies and social strategies are not as directly related to language learning. Rubin emphasises the value of reading about and discussing strategies used by effective language learners as a constructive preliminary activity which can help students become aware of the concept of language learning strategies.

Another taxonomy, developed by O'Malley et al. (1985a), divided learning strategies into three categories: metacognitive strategies, cognitive strategies, and social-affective strategies. The metacognitive and cognitive categories in this taxonomy correspond to Rubin's (1981) taxonomy of indirect and direct strategies. Metacognitive strategies were further divided by O'Malley and Chamot (1995) into

eight sub-categories: advance organisers, directed attention, selective attention, self-management, functional planning, self-monitoring, delayed production and self-evaluation. They also subdivided cognitive strategies into repetition, resourcing, translation, grouping, note taking, deduction, recombination, imagery and auditory representation, key word, contextualization, elaboration, transfer and inferencing, and socio-affective strategies into cooperation and questioning for clarification.

Language learning strategies have also been classified by Brown (2000) into two major divisions: learning strategies and communication strategies. Brown argues that the socio-affective strategies in O'Malley and Chamot's (1995) taxonomy are not actually learning strategies, but are rather communication strategies. Brown divides communication strategies into avoidance strategies and compensatory strategies. Avoidance strategies can be broken down into several subcategories, including syntactic and lexical avoidance, message abandonment and topic avoidance. Compensation strategies can be categorised into circumlocution, approximation, use of all-purpose words, word coinage, prefabricated patterns, non-linguistic signals, literal translation, foreignising, code-switching, appeal for help and stalling or time-gaining strategies.

In an echo of Rubin (1981), learning strategies have also been classified by Oxford (1990). Oxford's (1990) taxonomy of learning strategies is useful in that it includes direct and indirect strategies. In her taxonomy, direct strategies are subdivided into memory strategies, cognitive strategies and compensation strategies, while indirect strategies are subdivided into metacognitive strategies, affective strategies and social strategies. This approach is very inclusive and useful because it contains a new strategy system covering six main types of strategies in a coherent and consistent way.

Despite the contributions to the development of taxonomies of language learning strategies described above, these taxonomies have been challenged for being fuzzy. Dörnyei (2005), for example, called for the re-theorisation of language learning strategies and argues that a taxonomy of language learning strategies should be based on the concept of self-regulation. There are five types of strategies in the taxonomy proposed by Dörnyei (2005, p. 113): (1) commitment control strategies used for helping preserve or increase learner's goal commitment; (2) metacognitive control strategies used for monitoring concentration and for curtailing unnecessary procrastination; (3) satiation control strategies used for eliminating boredom and adding attraction to the task; (4) emotion control strategies used for managing disruptive emotional states; and (5) environment control strategies used for the elimination of negative environmental influences.

The new LLS taxonomy proposed by Dörnyei has also been criticised. Rose (2012) argues that is only useful for measuring the learners' self-regulatory capacity but not their actual strategy use (Rose, 2012). However, Gao (2006) has argued that Dörnyei's taxonomy could be used for measuring the beginning stage of a learning process, that is, whether a learner is self-regulated or not, while the old system of taxonomy could be used for measuring the end stage of the learning process, that is, learner's actual strategy use in learning a language.

Following Dörnyei's "self-regulation" theory, the six original learning strategy categories (Oxford, 1990) have recently been further refined and integrated by Oxford (2011) into a S²R (Strategic Self-Regulation) Model. The S²R Model includes three major dimensions of strategies: cognitive strategies, affective strategies, and sociocultural-interactive strategies. Cognitive strategies help the learner construct, transform, and apply L2 knowledge. Affective strategies help the learner create

positive emotions and attitudes and stay motivated. Sociocultural-interactive strategies help the learner with communication, with managing new sociocultural contexts and with identity in these contexts. Moreover, in her new strategy classification system, Oxford further adds three types of meta-strategies, which function as the support and control of the three major strategy dimensions: (1) metacognitive strategies which help learners control cognitive strategy use, (2) meta-affective strategies which facilitate learner control of affective strategy use, and (3) meta-sociocultural-interactive strategies which enable the learners to control sociocultural-interactive strategy use (Oxford, 2011).

Although the LLS taxonomy has been considerably enhanced in recent years, there remain three main areas of concern (Cohen, 2005; Cohen & Macaro, 2007; Cohen, 2011; Dörnyei, 2005). First, the distinction between direct and indirect strategies used in the taxonomies of Rubin (1981, 1987) and Oxford (1990) may be unhelpful and does not do justice to the effectiveness of some strategies (Cohen, 2005). For example, it is not helpful to classify metacognitive strategies as indirect strategies or cognitive strategies as direct strategies because both functions of metacognitive strategies and cognitive strategies are equally effective, whether direct or indirect, depending on the language context (Cohen, 2011). Thus it would be misleading to automatically conclude that certain strategies function either directly or indirectly as if they are carved in stone.

Second, the compensatory or compensation strategies identified in the taxonomies of Brown (2000) and Oxford (1990) should be re-considered because they focus on language use rather than on language learning (Dörnyei, 2005). For this reason, classifying a compensation strategy as a type of LLS seems to be inappropriate as well. Furthermore, it is arguable whether or not compensation strategies are in fact

used to compensate for a deficit in language learning (Cohen, 2005). If a learning "deficit" simply means a learning problem, then a compensation strategy could be considered as only a kind of tool to solve the learning problem, without capturing the extent to which strategies can facilitate future learning, thus, making it difficult to explain the use of compensation strategies among successful language learners (Cohen, 2011; Cohen & Macaro, 2007) who are generally thought to have fewer language learning problems

Third, there has been criticism of the clear-cut distinction made between cognitive strategies and memory strategies in the original taxonomy. Dörnyei (2005), for example, argues that these categories overlap because general mnemonic strategies are a subclass of cognitive strategies. In other words, memorising English vocabulary and grammar to do well on language tests can also be a kind of cognitive process if learners do it intentionally with effective learning strategies (Cohen, 2005). This is a different strategy from that used by learners who employ rote-memorisation to begin a task with the sole purpose of task completion rather than learning. In the process of rote-learning, learners are only adopting a survival skill (rote-memorisation) instead of a cognitive strategy. This does not mean that rote memorisation is a total waste of effort; however, if it is overused or is the only strategy a learner uses for L2 learning, the results can be negative (Oxford, 2011).

With regards to the aforementioned criticism of the classification of LLS, Cohen (2014) summarised four types of language use strategies, including retrieval strategies, rehearsal strategies, communication strategies and coping strategies. Retrieval strategies are used to call up language material from storage by means of whatever memory searching strategies the learner can muster; rehearsal strategies such as form-focused practice for rehearsing target language structures; communication

strategies which may be viewed as the first aid devices to deal with problems or breakdowns in communication; and two types of coping strategies. Coping strategies of the first type are compensatory strategies that learners use to allow them to compensate for a lack of some specific language knowledge, while coping strategies of the second type are cover strategies for creating an appearance of language ability so as not to look unprepared.

Cohen's (2014) taxonomy of LLS is based on *how* learners use a language instead of on features of language learning. For example, both retrieval strategies and rehearsal strategies can involve the use of general mnemonic and cognitive strategies, which helps to explain the overlap of memory strategies and cognitive strategies in the previous taxonomies of LLS. Cohen also includes compensatory strategies as a subclass of coping strategies, which addresses the criticism of compensation strategies being biased too much towards solving learners' language deficits.

The development of the categories of language learning strategies is summarised in Table 2.1. This summary includes the old system (focusing on strategy use) (Brown, 2000; Cohen, 2014; O'Malley et al., 1985a; Oxford, 1990, 2011; Rubin, 1987) and the new system (focusing on self-regulation) (Dörnyei, 2005). Nevertheless, the new LLS taxonomy has not been adopted in this current study because models that incorporate theory from both areas, that is, strategy use and self-regulation, are still in their infancy and need more exploration before use (Rose, 2011).

The present study was undertaken on the basis of Oxford's (1990) taxonomy because it is comprehensive, detailed and systematic (Ellis, 1994; Vidal, 2002). It is also highly recommended for researching LLS (Griffiths, 2004, 2013) because it has been used to study LLS use in a range of cultural contexts (Banisaeid & Huang, 2015), and

thus, makes comparison of LLS use across these contexts possible. It has been found to be reliable and valid for many cultural groups. It also aligns with each of the four language skills, listening, reading, speaking and writing (Oxford & Burry-Stock, 1995), which is particularly helpful for identifying the strategy use of current tertiary students in Macao. Moreover, Oxford's (1990) taxonomy has been used in LLS studies by Yang (1992) and Park (1995) in Taiwan and Korea respectively, studies used to research the relations between students' beliefs and strategy use, as this study does. This study uses the quantitative research findings of Yang (1992) and Park (1995) as a starting point and then extends these findings by means of a mixed method approach to investigate the relations between student beliefs and strategy use in Macao. Hence, it was decided to employ the same Oxford (1990) taxonomy in this study to make it possible to compare results across the three studies (Chamot, 2004; Oxford, 2011).

Table 2.1

Summary of the Strategy Classifications

O'Malley et al. (1985a)	Rubin (1987)	Oxford (1990)	Brown (2000)	Dörnyei (2005)	Oxford (2011)	Cohen (2014)
1. Metacognitive Strategies 2. Cognitive Strategies 3. Socio-Affective Strategies	1. Learning Strategies (Cognitive Strategies / Metacognitive Strategies) 2. Communication Strategies 3. Social Strategies	1. Memory Strategies 2. Cognitive Strategies 3. Compensation Strategies 4. Metacognitive Strategies 5. Affective Strategies 6. Social Strategies	1. Learning Strategies 2. Communication Strategies (Avoidance Strategies / Compensatory Strategies)	1. Commitment control strategies 2. Metacognitive control strategies 3. Satiation control strategies 4. Emotion control strategies 5. Environment control strategies	1. Cognitive Strategies 2. Affective Strategies 3. Sociocultural-Interactive Strategies	1. Retrieval Strategies 2. Rehearsal Strategies 3. Communication Strategies 4. Coping Strategies (Compensation Strategies / Cover Strategies)

2.2.3 Previous studies of language learning strategies

Along with the development of the taxonomy of language learning strategies, considerable research on different aspects of language learning strategies has been conducted. In this section, previous studies of language learning strategies will be reviewed, concentrating on language learning strategies, factors affecting learners' strategy choice, and the effects of strategy teaching on the use or choice of language learning strategies.

2.2.3.1 Major findings

The origins of LLS research can be traced back to the 1970s and the development of three main assumptions. Early studies in the 1970s concentrated on how less successful learners learn from effective learners in terms of the use of LLS (Bialystok, 1979; Naiman et al., 1978; Rubin, 1975; Stern, 1975; Wong-Fillmore,1976). At the time it was believed that the choice of LLS by effective learners provides a living model for the weaker learners to imitate. However, some critics argued that strategies used by good learners were not always the panacea for weak learners who have different personality traits. For this reason, in the following two decades, LLS researchers shifted their study focus to metacognitive knowledge and the self-regulatory process in strategy use (O'Malley et al., 1985a, 1985b, 1987; O'Malley & Chamot, 1990; Wenden, 1986a). Since then there have been claims that LLS helps increase the autonomous ability of learners. Nevertheless, questions about whether strategic learners always select the same learning strategies in the same way are still prevalent in the LLS research area. After the mid 1990s, researchers (Amirkhiz, 2011; Bruen, 2001; Ehrman & Oxford, 1995; Grainger, 2012; Griffiths, 2003; Rahimi, Riazi & Saif, 2008; Vandegrift, 2003) found that learners' strategy use is very personal and is affected by

many variables, including the motivation, personality, intelligence, and cultural background.

In the early 1970s the strategies of successful learners were the focus of research for the first time. The earliest contribution to this field was by Rubin (1975), who developed a list of strategies typical of effective language learners. Her assumption was that strategies employed by successful learners could be made available to less successful learners. Rubin suggested that effective L2 learners are willing and accurate guessers; have a strong drive to communicate; are often uninhibited; are willing to make mistakes; focus on form by looking for patterns and analysing; take advantage of all practice opportunities; monitor their speech as well as that of others; and pay attention to meaning. At about the same time, Stern (1975) also published an article listing strategies used by effective language learners, which included a personal learning style. Stern set out to describe what good language learners do in contrast with what the not-so-good learners do not do. Stern (1975, p. 311) believed that a good language learner was characterised by a personal learning style incorporating positive learning strategies and an active approach to the learning task, as well as:

- a tolerant and outgoing approach to the target language which was recognised by speakers of the language;
- technical know-how about how to tackle a language;
- strategies for experimentation and planning with the objective of developing the new language into an ordered system with progressive revision;
- constant searching for meaning;
- willingness to practise;
- willingness to use the language in real communication;

- critically sensitive self-monitoring of language use; and
- an ability to develop the target language more and more as a separate reference system while learning to think about it.

Supporting the work of Rubin and Stern, Wong-Fillmore (1976) studied five Chicano ESL students and found that successful language learners were likely to join a group and to try to participate in activities. In addition, successful language learners tend to ask for help from friends in order to stay in the conversation. Based on the work of Stern (1975), a study by Naiman et al. (1978, p.4) focused more closely on learners' personality traits, cognitive styles and strategies critical to successful language learning; they developed the following list of general strategies and related techniques used by effective language learners:

- actively involve themselves in the language learning process;
- develop an awareness of language as a system and as a means of communication and interaction;
- accept and cope with the affective demands of L2; and
- extend and revise L2 system by inferencing and monitoring.

In another study, Bialystok (1979) examined the effects of using learning strategies such as inferencing, functional practising, monitoring and formal practising on successful language learning. She found that the use of all the four strategies had positive effects on secondary students' second language performance.

LLS research in 1970s investigated LLS used by high-achieving language learners which low-achievers could learn and imitate. The research findings summarised common characteristics of successful language learning, and indicated that high-achieving learners are very confident and positive in language learning.

According to the findings, successful learners are very willing to take opportunities to practise their language especially by employing communication and social strategies, and more importantly, they can self-monitor and organise their own language learning very well, factors which might contribute to their success.

While strategies used by successful language learners have been documented, it may not be effective simply to expose low-achieving learners to these strategies and to allow them to study the strategies passively. It may be much more important to investigate the underlying factors that motivate good learners to be strategic. As research has revealed (Wenden, 1986a), more successful learners are probably able to exercise greater metacognitive control over their language learning, which leads them to be spontaneous and strategic language learners.

Wenden's study focused on what learners knew about their L2 learning (metacognitive knowledge) and how they planned it (a regulatory process), and she arguesd that strong metacognitive skills empower language learners. According to Wenden, metacognitive skills help learners to make conscious decisions about what they can do to improve their learning. Such use of metacognitive strategies is the major difference between low-achieving and high-achieving learners. In regard to the relation between the learners' language levels and their metacognitive knowledge, O'Malley et al. (1985a, 1985b) also revealed that both beginning and intermediate ESL students used more cognitive strategies (e.g. repetition and note-taking) than metacognitive strategies, although intermediate level students reported comparatively more metacognitive strategy use than beginner level students, leading the researchers to conclude that the more successful students are probably able to exercise greater metacognitive control over their learning. In support of Wenden, O'Malley and Chamot (1990, p.8)

emphasised that "students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions." They conducted studies on ESL students studying in both high school and college settings and found that effective language learners made frequent use of a wide range of metacognitive strategies. Hence, they concluded that the teaching of metacognitive skills might be a valuable use of instructional time to help learners engage metacognitively with the learning task and thereby to learn more effectively.

Studies during the 1980s and the 1990s contributed to the understanding of metacognition in LLS use. These studies found that the use of LLS help to develop learners' metacognitive skills while, simultaneously, their metacognitive knowledge can facilitate varied selection and use of LLS. With metacognitive knowledge and the proficient use of metacognitive strategies such as self-assessment and self-management, learners will be more autonomous and self-regulated. They are more likely to understand how to review and plan their own language learning. In the long term, they have the potential to become self-directed and life-long learners, which is after all the final goal of second language teaching and learning.

During the first decade of the twenty-first century researchers tended to shift their study focus and became more concerned with the relations between strategy use and other variables. According to Griffiths (2013), successful language learning is positively related to frequency and quantity of strategy use, and successful learners do not limit themselves to a narrow range of strategies. In other words, if learner strategy choice is limited, learner variables need to be considered. These learner variables include English proficiency (Bruen, 2001; Rao, 2012), learning motivation and gender

(Rahimi, Riazi & Saif, 2008), cultural background (Grainger, 2012), and academic major (Gu, 2002; Peacock, 2001; Peacock & Ho, 2003; Rao & Liu, 2011). More associated variables will be discussed in the following subsections.

The literature reviewed in this section provides evidence of the influential role of LLS in the process of language learning. Paying attention to LLS in their second language learning appears to promote metacognitive skill, so learners who use these strategies may be more likely to overcome barriers to learning in a self-regulated way. Moreover, studies conducted since the 2000s present a more practical trend in our understanding of the value of LLS, by providing evidence that it is more important to investigate the underlying factors that affect learners' strategy choice, a shift away from the earlier emphasis on low-achieving learners learning from effective strategic learners. Nevertheless, it is important to be cautious because the effect of factors identified as influential in some studies may differ according to the learners' ethnic origin, learning environment and cultural background. In other words, language learning strategies employed by effective learners in one context might not be suitable for learners in other contexts, and the choice of LLS may need to be adjusted according to the learners' personal factors and abilities. Hence it is very worthwhile to investigate Macao tertiary students' potential factors that have marked impact on their strategies used to learn a language. The following subsections present a discussion of the way individual factors may affect learner strategy choice.

2.2.3.2 Factors affecting students' strategy choice

Another major concern in the field of LLS research has been to develop a more sophisticated understanding of individual differences in learners' strategy use. The relationship between learners' strategy use and individual learner characteristics has

been examined in great detail across a range of studies (Abbasian, Khajavi & Mardani, 2012; Banisaeid & Huang, 2015; Benson, 2001; Benson & Gao, 2008; Dörnyei, 2012; Donato & McCormick, 1994; Ellis, 1994; Gao, 2010; Griffiths, 2013; Khosravi, 2012; Lujan & Di Carlo, 2006; McDonough, 1999; Noels et al., 2000; Schwandt, 2001; Willing, 1988; Wu, 2008; Yamamori, Isoda, Hiromori & Oxford, 2003). Individual learner characteristics include age, gender, personality, learning styles, motivation, belief, language proficiency, cultural background, career orientation and study programs. According to Gao (2010), individual learner characteristics can be classified into three categories: innate factors, social background factors and acquired factors.

2.2.3.2.1 Innate factors

Learners' innate characteristics include variables such as age, gender, personality, and learning styles. These are characteristics which learners most probably have little control over.

The first innate factor influencing LLS is age. In the study of Magogwe and Oliver (2007), three different cohorts of students were compared in terms of their strategy use: primary (aged 11–15), secondary (aged 16–20), and tertiary (aged 21–25), each group being further classified into three levels of proficiency (poor, fair, or good). The finding was that secondary and tertiary students had a preference for metacognitive strategies, while primary students displayed a more frequent use of social strategies. In another study, Tragant and Victori (2012) surveyed 402 students in Spain from 18 classes, aged from 12-18. Each age group was classified into four levels (i.e. fail, pass, good and excellent) according to the EFL course grade obtained. The results indicated that

younger students in the earlier years of schooling showed clearer preferences for strategy use than older students.

In a recent study, Griffiths (2013) indicated that with increasing age students might be more skillful in language strategy use because of their learning experience, while for younger learners strategy use was found to be more influenced by earlier years at school. However, better use of the LLS among the mature group did not guarantee a higher frequency of strategy use. In her study, Griffiths (2013) found that there was no difference in average reported frequency of strategy use between older and younger students. Hence, Griffiths suggested that learners of different age can be strategic learners as long as they are well-motivated.

In this section the age factor is discussed in terms of the way it intersects with other variables such as hours of study, class grades and proficiency because there are very few prior studies investigating the relations between LLS and the age factor on its own. However, the learners in this study are of a similar age and have had a similar number of hours of instruction because they are all enrolled in the same English programme. Thus, in relation to this cohort, age and hours of instruction are not significant variables, which may not be true in other EFL contexts.

The second innate factor affecting LLS is gender. In a series of studies done by Oxford and her colleagues (Ehrman & Oxford, 1989; Oxford & Nyikos, 1989), female students reported significantly greater use of learning strategies in many categories over their male counterparts. For example, Oxford and Nyikos (1989) surveyed 1200 university students and found that female students reported using learning strategies significantly more often than male students, and female students also used a wider range of strategies than male students did. Around the same time, Ehrman and Oxford (1989) replicated

the same research and gained the same findings. A further study (Green & Oxford, 1995) of 374 students at University of Puerto Rico resulted in similar findings that women used more learning strategies such as the memory, affective, cognitive and social strategies than the males did. Similarly, a study by Vandergriff (1997) of 36 high school French students reported that female students used slightly more metacognitive strategies than male students. Furthermore, Osanai (2000) examined divergence in the use of learning strategies among male and female ESL university students and found females tended to use more social and affective strategies than males. Related studies have been conducted in China, including Gu's (2002) large-scale survey of a group of adult Chinese EFL learners in relation to their vocabulary learning strategies, which reported a similar result that females used significantly more of the vocabulary learning strategies correlated with success in EFL learning. In consideration of a higher frequency in the use of effective LLS by female learners, El-Dib (2004) surveyed 750 college students in Kuwait and found that females tended to use significantly more cognitive-compensatory strategies and repetition-revision strategies than males do. On this finding, El-Dib suggested that the cultural milieu in which both males and females live and the opportunities given to each within that cultural context should be accounted for.

All these studies reviewed above lead us to the conclusion that female students are in general more proactive and successful in the use of language learning strategies than their male counterparts. The difference is probably due to the different characteristics of the two genders. Males engaged in learning which was more risk-taking or creative even if it led to more mistakes, while females used a more systematic and cautious learning approach (Prokop, 1989). Moreover, females preferred to be correct in their learning and were prepared, if necessary, to change their approach to learning. From the

psychological point of view, risk-takers such as males in general were more likely to use the L2 in free language use (Ely, 1988) and so they did not tend to plan their language learning in terms of the various effective learning strategies (Mercer, Ryan, & Williams, 2012). However, females seemed to have superiority in verbal aptitude and social orientation (Ehrman & Oxford, 1989), and so they would employ more social or communication strategies than their male counterparts. In other words, female learners are likely to attempt new learning strategies if the strategies are workable and helpful to their language learning, which contributes to effectiveness and accuracy in language learning. For these reasons, comparatively females have come to be considered more strategic learners than males. The gender factor of LLS is complicated, as it has been pointed out that learners may be more male-like or female-like in their strategy use despite their biological gender (Cohen, 2014). However, the gender factor is not a focus of this study so it is not investigated further here.

The third innate factor that plays an important role in the use of language learning strategies is learner personality. There is evidence that different personality types use different LLS. Based on the models of personality traits (Digman, 1990), researchers (Vermetten, Lodewijks & Vermunt, 2001) found that personalities of friendly and cooperative students (of the agreeableness model), and organised and careful students (of the conscientiousness model) had direct effects on surface learning, such as the use of memorising strategies and analysing strategies, because these students were more effort-oriented. They also found that the personalities of creative and autonomous students (of the intellect model) had direct effects on deep learning, such as the use of self-regulation strategies, due to their task-orientation.

In consideration of personality traits, Liyanage (2004) surveyed 948 ESL students in government schools in Colombo, Sri Lanka, and found a strong association between

personality type and language learning strategy use. Liyanage found that in general learner personality was significantly associated with and influenced metacognitive, cognitive, social and affective strategies. More recently, Ehrman (2008) surveyed a sample of the top two per cent of the best language learners out of 3145 learners through oral interview, involving speaking, interactive listening, and an interactive reading test using authentic material. Ehrman reported that "the best language learners tend to have introverted personalities… and… they are logical and precise thinkers who are able to exercise judgement" (2008, p. 70). In contrast to the previous findings, Griffiths (2013) indicated that overall there does not seem to be any particular personality which is more strongly typical of good language learners than others although personality might have some effect on strategy choice.

Research findings regarding the relation between personality traits and language learning suggest a positive relation between learning strategy use and the personality of successful learners; however, the individual strategy choice of successful learners should not be directly transferred as a model for low achievers because no single personality trait has been identified that can explain more than a small proportion of variance in successful L2 acquisition (Mercer, Ryan & Williams, 2012). Indeed, learners' psychological variables not only interact with each other but also with a wide range of socio-biographical and education variables. Teachers need to be aware of different personality types in their classrooms, but since any classroom will contain a wide variety of personality types, it is impossible for teachers to cater for specific types. As shown in Section 1.2.4, Macao tertiary students are found to be passive and introvert, so what language teachers in Macao can do is to create a positive emotional environment, work at motivating learners and help learners to believe that whatever

their personality, they are capable of attaining a high level of proficiency in their language learning.

The fourth innate factor influencing the choice of LLS is learning style, following Gao (2010). Students with different learning styles have been found to be more likely to employ a range of language learning strategies. For example, Ehrman and Oxford (1990) surveyed twenty college graduates in their study to investigate the relations between students' learning style and their choice of language learning strategies, resulting in four findings:

(1) Extroverts used more social strategies while introverts preferred metacognitive strategies.

(2) Sensitive students (Ehrman & Oxford, 1990), who prefer to absorb data in a literal, concrete fashion, preferred memory strategies, and intuitive learners preferred to generate abstract possibilities from information that is gathered, and used compensation strategies.

(3) Thinkers who make decisions in a rational, logical, impartial manner, used more cognitive and metacognitive strategies, and students who make decisions on each individual case, in a subjective manner, used more social strategies (Ehrman & Oxford, 1990).

(4) Judgers, who want things to be neat, orderly and established, favoured metacognitive strategies, and perceivers, who want things to be flexible and spontaneous, preferred affective strategies.

In a related study, Willing (1994) also categorised the four language learning styles into communicative style, analytical style, concrete style and authority-oriented style. Based on Willing's classification, Wong and Nunan (2011) conducted a further survey

of 674 undergraduate students in Hong Kong, aiming to explore whether there were differences in learning styles, strategy preferences, and patterns of practice and use between more effective and less effective learners studying at tertiary level in Hong Kong. Wong and Nunan reported that the dominant learning style for more effective students was 'communicative', while for less effective students it was 'authority-oriented'.

Learning style is a very individual matter, according to Griffiths (2013). In a qualitative study, she found that learners appear to favour certain types of activities according to their learning style, but no particular learning style appeared to be more likely to lead to success than any other. In addition, learning style, to a large extent, intersects with learners' culture and personalities. For example, as displayed in Section 1.2.4, Macao tertiary students in general are mostly of the authority-oriented style because of the Confucian heritage culture (Tran, 2013) and they tend to be typically passive and are unwilling to speak up in class. In this learning culture, Macao students are more passive and introvert in classroom, and so social strategies or communicative strategies may be used less when learning English. Once learners are aware of their own learning styles, it enables them to adapt their learning strategies to suit different learning tasks in particular contexts. Learners can take advantage of their learning style by matching learning strategies to their learning style. Similarly, learners can compensate for the disadvantages of their learning style by adjusting learning strategies.

To summarise the literature reviewed above, age, gender, personality and learning style appear to be closely related to the use and choice of LLS. As the abovementioned findings have shown, mature learners appear to be more resourceful and metacognitive, while younger learners tend to use more strategies in language learning. Moreover, it

was found that female learners tend to employ LLS more frequently than male learners and their selection of LLS was in wider range. In addition, learner personality and grades appear to influence the selection of LLS, especially metacognitive strategies, cognitive strategies, social strategies and affective strategies. In relation to learning style, extroverts appear more likely to employ social strategies while introverts tend to use more metacognitive strategies; effective learners tend to use more communicative strategies while the less effective learners tend to be more passive and less strategic. From a pedagogical point of view, these findings should be interpreted carefully because some innate factors, such as the learners' personality and learning styles, vary with age of the learners and to the learning environment. The effect of these innate factors may shed light on Macao tertiary students' unsuccessful English learning as well as directing future English teaching in Macao.

2.2.3.2.2 Social background factors

Social background factors include cultural background and/or nationality, career choice and the program of study (Gao, 2010). These factors reflect the context in which the language is being learned.

Cultural background has been linked to use, choice and acceptability of language learning strategies (Grainger, 1997; Oxford & Burry-Stock, 1995; Reid, 1987; Wharton, 2000). For instance, in a culture that prizes individual competition and organises its educational system around competitive tasks, successful language learners may prefer strategies that allow them to work alone rather than social strategies that call for collaboration with others (Chamot, 2004).

Many studies of effective language learning strategies appear to be based on language learning contexts in the West (Politzer & McGroarty, 1985), but Reid (1987) found that

L2 students of a particular cultural background are predisposed to use certain types of strategies. For example, Grainger's (1997) study of 133 learners of Japanese from various ethnic backgrounds found no significant differences in overall SILL scores among native English speakers, those from European backgrounds, and those students from Asian backgrounds. The study, however, revealed that Asian-background students were better at managing their affective state, remembered more effectively, and used compensation strategies better than students from an English-speaking background, findings which are consistent with those of Phillip (1991) and Mullins (1992). In addition, Wharton (2000) and Yang (1999) found that Asian students have strong preferences for memory strategies rather than communicative strategies, such as working with others, asking for help, and cooperating with peers, which is also consistent with related studies by Griffiths and Parr (2000) and Griffiths (2003). Similarly, the study by Rao (2006) of 225 university students at Jiangxi Normal University in China found that most participants preferred repetition strategies for memorising vocabulary and spelling. Rao attributed this result to the traditional features of Chinese culture characterised by collectivism, socialisation of achievement and a high acceptance of power and authority. Moreover, Asian cultures encourage listening to others and discourage public discussion of feelings. For Asian learners this is a feature of their upbringing and school experience (Politzer, 1983; Reid, 1987). This typical authority-oriented learning culture has a great impact on Macao tertiary students' English learning, as mentioned in Section 1.2.4, especially the use of social strategies and communicative strategies, demanding students to be proactive in cooperating and interacting with others.

Whether students are learning English as a second language or as a foreign language also impacts on strategy use (Green & Oxford, 1995; Oh, 1992). To find out more about

the strategy use of bilingual learners or learners who are bilinguals, Wharton (2000) surveyed 678 undergraduate students studying Japanese and French at a university in Singapore with the findings that the bilingual Asian students favoured social strategies more than any other strategy type, a result which differs from previous studies. This may be because L2 learners in Singapore are mainly second language learners who have more access to authentic L2 language input and interaction, with a related increase in opportunities and motivation to use English. As shown by Phillips (1991), Rossi-Le (1989) and Wharton (2000), second language learners tend to report higher frequencies of effective strategy use than foreign language learners, especially in their use of social and communicative strategies.

Although cultural background may influence learners' strategy use, teacher intervention in the learning process can change their strategy choice. In a college Intensive English Program (IEP) where all students were engaged in active use of effective strategies in language learning regardless of their nationalities, Hong-Nam and Leavell (2006) conducted a study of 55 ESL students from different cultures and linguistic backgrounds enrolled in a college intensive English programme. They found that many Chinese students preferred social strategies and adopted fewer memory and affective strategies. Affective strategies were selected least by Japanese students and memory strategies were used least by the Korean group. Hong-Nam and Leavell confessed that their study results did not support previous studies in which Asian students were commonly assumed to favour memory strategies rather than affective and social strategies. They believed that this might be due to the impact of IEP training and its different definition of memory strategies. They further clarified that memory strategies in their study included acting out new vocabulary, using rhymes or creating a mental image and did not solely refer to rote-memorisation as in the

previous studies. These findings indicate that learners at different levels have different needs in terms of teacher intervention in the learning process.

In addition, the teacher's focus can affect students' strategy choice. As mentioned by Ananisarab and Abdi (2012), teachers in university contexts help students to use language communicatively, but teachers in high school contexts tend to help their students master grammatical points and vocabulary items, and understand reading passages. Thus, strategy use or choice of these two groups of students might differ, but on the other hand this also implies that students' strategy choice can be altered via the teaching of LLS.

Students' choice of language learning strategies is also influenced by the subjects they study and their career orientation. To a certain extent, the subjects students study reflect their career orientation because career orientation might indicate the field of specialisation or current career position. In regard to the relation between career position and strategy use, Ehrman and Oxford (1989) found that, for adult language learners, career position influenced their foreign language learning strategy choice. For example, they reported that professional linguists used a wider variety of language learning strategies than did adult language learners and native-speaking language teachers not trained in linguistics. Specifically, professional linguists used significantly more of the following general categories of strategies: functional practice (authentic language use), searching for and communicating meaning, formal model-building, and affective strategies. This is probably due to two reasons. First, by virtue of experience and education this group has become aware of and proficient in these strategies. Second, professional linguists are overwhelmingly intuitives, who prefer to figure out the main principles of how the language works without benefit of the rules (Peace Corps, 2000, p.

16). This is also supported by David, Thompson, Thomas and Thomas (2009) and Felder (1993), who agree that intuitives might learn better using a didactic approach, focusing more on theories and ideas, and so they will be more strategic in managing their major learning.

When considering learners' field of specialisation, Politzer and McGroarty (1985) found that studying engineering/science and social science/humanities had a significant effect on the strategy choice of ESL students. In their study of foreign language learners, Oxford and Nyikos (1989) also discovered that a student's university major directly affected strategy use. Humanities/social science/education majors used self-regulatory strategies and functional practice (authentic language use) strategies more often than did students majoring in other areas. This may be attributed to the learners' learning inclination. Students who major in Humanities/social science/education have comparatively clearer learning goals and success criteria, which motivate them to learn more strategically and autonomously. As Reid (1987) argues, students' fields of specialisation influence their learning modality preferences, whether visual, auditory, kinesthetic or tactile, preferences which probably relate to their choice of language learning strategies.

Based on previous research results of students' field of specialisation, Gu (2002) surveyed Chinese adult EFL science and humanities students in terms of their strategy choice in relation to learning vocabulary and found that science students slightly outperformed humanities students in vocabulary range but humanities students significantly outperformed science students on the general proficiency test. It was found that humanities students believed more in the natural acquisition of words in context than science students, but they did not do more contextual guessing and

contextual encoding of vocabulary than the science students. Instead, humanities students spent more time studying and taking vocabulary notes than the science counterparts. This might indicate that science students in general are more inclined to remember words in isolation whereas humanities students as a group put more emphasis on integrated practice. On the other hand, perhaps humanities students are more oriented towards language study in general, whereas science students learn what is needed for immediate, instrumental purposes. More specifically, Peacock and Ho (2003) surveyed over a thousand Hong Kong university students studying different majors and found a relationship between the disciplines being studied and language learning strategy use. Students majoring in English used the most strategies but students majoring in computing used the fewest learning strategies. Generally, foreign language learning as a task is more related to the arts than to the sciences. This perhaps explains why arts students perform better than their science counterparts. Moreover, science students in China are normally overloaded with homework, projects and laboratory work, and, therefore, have relatively less time to learn such a time-consuming subject as English. Science students may not see English as an important or enjoyable subject, and so they are not motivated to learn.. These findings reflect suggestions by Yang (1999) and Horwitz (1987) that there is a link between student beliefs about language learning and their strategy use. The lack of student learning motivation and relatively poor learning attitudes to English may have serious effects on language learning (Dörnyei 1994; Cook 2001; Tudor 1996).

This study will not correlate Macao tertiary students' beliefs and strategies about language learning with their field of specialisation because they are all first year tertiary students who may not be influenced by their field of specialisation, especially their language leaning beliefs, so strongly yet. In addition, more than 70% of the target

students in this study specialise in the business field such as School of Management and Administration and School of International Tourism (see Section 4.2) and the anticipated correlation results may not be generalisable. Hence students' field of specialisation in this study is not expected to be a very significant variable in affecting the correlational results, and is not considered in this study.

In summary, social background factors, including cultural background, career orientation and the program of study are related to LLS use. Asian students have been found to be better at managing their affective and memory strategies but weak in communicative and social strategies when compared with their western counterparts, most likely because of traditional features of Chinese culture such as collectivism, socialisation of achievement and acceptance of authority (see Section 1.2.4) In addition, students with a career orientation or study specialisation tend to be more strategic in language learning because they have very clear learning objective and success criteria, and so they are highly motivated. Furthermore, students majoring in arts are reported as performing better at L2 learning than students majoring in the sciences. This is because foreign language learning is a task more closely related to the arts than to the sciences, and science students are more likely to memorise words separately while their arts counterparts will focus more on integrated practice. Although research findings relating social background factors with language learning strategy use cannot be viewed as absolute because they are subject to so many contextual variables, that there is a relation between social background and the use of LLS is supported by the evidence, which does have implications for pedagogical practice.

Macao tertiary students' beliefs and strategy use in learning English might also be influenced by the social background factors such as the political background and career

orientation. Thus, pedagogically, English teaching in Macao should not simply draw on the past experience, but should also account for potential social background factors.

2.2.3.2.3 Acquired factors

According to Gao (2010), the third category of learning characteristics that affect learners' learning strategy choice relate to those that are acquired. Learners' acquired characteristics include motivation, language proficiency and belief. These characteristics can be changed through conscious and deliberate effort, and hence the focus of this study.

Motivational variables are considered important for the choice of language learning strategies. There is evidence that language learners with higher levels of motivation possess a richer repertoire of strategies and generally employ learning strategies more frequently than less motivated language learners. For example, Oxford and Nyikos (1989) surveyed 1200 students studying various languages in a Mid-western American university and provided the insight that career-oriented instrumentally motivated students used more formal rule-related strategies than functional practice strategies. They reported that motivational variables were significantly related to students' choice of strategies, especially formal rule-related practice strategies, functional practice strategies, general study strategies and conversational input elicitation strategies.

Apart from tertiary students, Ehrman and Oxford (1989) also found that adult learners who learnt a foreign language for job-related reasons also used many functional communicative practice strategies. Meanwhile, Prokop (1989) studied university students of German and found that a general desire to learn German was an excellent predictor not only of success in German, but also of the way in which students employed learning strategies. Similar research has been conducted in Asia. For

example, in Singapore, Wharton (2000) surveyed 678 Japanese and French learners and reported that the degree of motivation had the most significant effect on the use of learning strategies. Likewise, Teh, Embi, Yusoff and Mahamod (2009) surveyed 457 Form 4 students of English from thirteen religious secondary schools in Malaysia. The results indicated that the students were moderately motivated to study English, with a tendency to stronger integrative motivation than instrumental motivation. This type of language learning motivation was strongly correlated with students' strategy use in language learning. These two sets of findings in relation to language learning motivation were in line with Oxford and Nyikos' (1989) findings. Both studies showed that the more motivated the students, the more frequently they reported using learning strategies in general.

Moreover, Schmidt and Watanabe (2001) conducted a study at University of Hawaii of 2,089 language learners, and found that motivation did affect strategy use but some associations were much stronger than others. The motivational factors of value, motivational strength and cooperativeness strongly affect strategy use, while the use of cognitive and metacognitive strategies is mostly affected by motivational value and strength. The relation between learning motivation and strategy use should be seriously considered in this study as Macao tertiary students are generally extrinsically motivated in learning English, which may directly influence their choice of language learning strategies.

In a more recent study, Tang and Tian (2015) confirmed that there is a significant relationship between motivation and language learning strategies. In their study, a questionnaire survey was conducted at six universities in Shaanxi province, China. There were 546 Chinese EFL tertiary students, who did not major in English,

participating in the study. The study shows that the cultivation of learning motivation can influence students' learning strategy use because learning motivation itself is the base of shaping students' good learning beliefs in language learning.

The second acquired factor to discuss is language proficiency. In many studies, language proficiency is implied by class level and the number of years of language study. However, a relation has been found between the language proficiency and strategy use, as emphasised by MacIntyre (1994) who argued that generally strategy use results from and leads to increased language proficiency. To explore the effect of this acquired factor, Chesterfield and Chesterfield (1985) conducted a study of children's use of language learning strategies in bilingual classes and the results showed that children with greater English language proficiency employed a wider range of strategies than their less proficient peers. Chesterfield and Chesterfield indicated that strategies like repetition and memorisation were the first selected, and were then followed by interactive strategies. In another study, Oxford and Nyikos (1989) found that students' self-ratings of proficiency were strongly related to their strategy use. They reported that university students who rated themselves as proficient in speaking, listening or reading tended to choose a variety of language learning strategies.

Supporting the study findings of Oxford, and Nyikos, Park (1997) found that Korean students chose learning strategies differently according to their English proficiency levels. Park's study revealed that all six categories of learning strategies measured by SILL (Oxford, 1990), including memory strategies, cognitive strategies, metacognitive strategies, affective strategies, compensation strategies and social strategies, were significantly correlated with the participants' TOEFL (Test of English as a Foreign Language) scores.

In another study, Green and Oxford (1995) found that the proficiency level significantly affected the use of compensation, cognitive, metacognitive, and social strategies, but displayed no effect on the use of memory and affective strategies. In a similar study in Taiwan, Chou (2002) surveyed students attempting the Technology-Based College Entrance Exam and compared it with students' strategy use. A strong linear correlation was found between students' proficiency level and their strategy use. Aligning with those similar studies in Taiwan, Pan (2005) investigated 462 adult learners and reported a highly significant relationship between learners' English proficiency and their use of various learning strategies. The bidirectional relation between language proficiency and strategy use has also been found in a recent study (Zhong, 2015). In her case study conducted in New Zealand, Zhong found that strategy use helped develop proficiency, which in turn promoted more use of language learning strategies. As mentioned in Section 1.2.6, in general the English learning outcomes of Macao tertiary students are unsatisfactory, which might determine the language learning strategies they tend to select. The study by Zhong (2015) suggests that their language learning outcomes can be improved by means of more effective strategic language learning.

The last important acquired factor presented in this section is students' learning beliefs, the factor that is the focus of this study of Macao tertiary students' English language learning. Students' beliefs about language learning were found to significantly affect their choice of language learning strategies (Benson & Lor, 1999; Bernat, 2004; Griffiths, 2013; Loewen et al., 2009; Nikitina & Furuoka, 2006; Suwanarak, 2012; Wenden, 1986a, 1987a, 1999; Yang, 1992, 1999; Zimmerman, Bandura & Martinez-Pons, 1992). Compared with other variables underlying strategy choice, such as gender and learning style which are stable and hard to change by conscious effort, students' beliefs may be more amenable to teachers' intervention (Park, 1995) because

they are influenced by both students' previous learning experiences and by their cultural backgrounds (Biggs, 1993, 1996; Horwitz, 1987). More importantly, it is not the learners themselves who are incapable of learning English but, instead, it is the belief that they cannot learn English well that is the barrier to their learning (Griffiths, 2013).

All the acquired factors, including learning motivation, language proficiency, and most importantly for this study, learning beliefs, can be acquired during the socialisation process and these characteristics are subject to dynamic changes in particular contexts. To foster students' integrative or intrinsic learning motivation, the teaching style, teaching materials and classroom atmosphere play a crucial role. To increase students' language proficiency, the proper use of cognitive and interactive strategies is very necessary because strategies such as these are the cause and the outcome of students' language proficiency. Language proficiency, however, is also built on positive learning motivation and beliefs. In other words, these three acquired factors actually interact with each other. As long as we understand our students' language proficiency and their language learning motivation, their beliefs about learning English, which is also the focus of this study, can be predicted.

2.2.3.3 The teaching of language learning strategies

Because of the influential role language learning strategies have been shown to play in L2 learning, the teaching of English learning strategies is helpful in improving students' English achievement (Chamot, 2005, 2008; Cohen, 2011) and is important in promoting students' autonomy and life-learning (Oxford, 2011; Cohen, 2014), as well as having a positive effect on the learning of a variety of language skills (Cohen, 2003; Cohen & Macaro 2007) in the process of the L2 acquisition. The explicit and effective

classroom-based teaching of LLS has also been shown in the research literature (Chamot, 2008; Cohen, 2014; Cohen & Weaver, 1998; Griffiths, 2013; O'Malley & Chamot, 1990; Oxford & Leaver, 1996).

Arguments in favour of strategy training, and evidence of its success, have been provided by several researchers (Chamot & O'Malley, 1994; Cohen, 2003, 2011; Greenfell & Macaro, 2007; Oxford, 1990; Rubin et al., 2007; Zhang, 2008). For example, Zimmerman (2002, p. 70) argues:

> In an era when these essential qualities [Self-regulated students focus on how they activate, alter, and sustain specific learning practices in social as well as solitary contexts] for life-learning are distressingly absent in many students, teaching self-regulated learning processes is especially relevant.

In this argument Zimmerman makes two main points:

1) Students nowadays are not self-regulated in general, and so LLS training is necessary to make them autonomous;
2) The teaching of LLS is both helpful and feasible in language learning, and teachers can assist the language learning process by promoting language learning strategy awareness and use.

Similarly, Lynch and Trujillo (2011) have pointed out that many undergraduate students fail to adapt as they make the transition from the high school to the tertiary instructional environment; they found that study strategies that were effective for students in high school, such as memorisation or rote learning, were no longer a 'panacea' in university, where discussion, presentation skills and critical thinking supported by communicative, social or metacognitive learning strategies were mostly required. In Macao, for example, where, according to policy documents, students are expected to be lifelong

learners (Education and Youth Affairs Bureau, 2012), the teaching of English learning strategies seems to be necessary and should start as early as possible even as early as the kindergarten years (Cohen, 2014), with the aim of raising students' metacognitive consciousness before they form any inappropriate learning beliefs.

In addition, a number of studies have been carried out to scrutinise the positive effects of language strategy teaching in terms of the different language skills. For example, Ozeki (2000) surveyed a group of college students in Japan undertaking a 20-week listening comprehension program. Ozeki compared the pre-test and post-test scores to evaluate the effects of learning strategy training and found that students' improvement was significant in listening ability and in the use of learning strategies. A study of writing strategies teaching was conducted in England with six classes of secondary students of French (Macaro, 2001). In Macaro's research, students received approximately five-months of training on a variety of writing strategies and the results showed that students began to attempt a range of useful writing strategies independently, without relying as much on their teachers as before and they became more independent and selective in their dictionary use.

A study of learning strategies related to reading skills was conducted by Dreyer and Nel (2003) over a 13-week semester. In their study, a combination of cognitive and metacognitive strategies were taught to and practised by 131 first-year Afrikaans and Setswanan L1 students at a South African university learning English for professional purposes. By the end of the program, the students achieved significantly higher comprehension scores due to their willingness to use the cognitive and metacognitive strategies they had been taught in reading comprehension exercises. Dreyer and Nel's findings are echoed by Aghaie and Zhang (2012) who conducted a similar study of 80

intermediate-level EFL students participating in a strategy training program. Their statistical analysis showed an overall change in this group of students in terms of the use of metacognitive strategies when reading and a strong association between strategy training and improvement in reading performance.

To explore the relation between learners' speaking skill and strategy use, Nakatani (2005) investigated the impact of strategy use on communicative ability by conducting a survey of 28 female learners participating in a 12-week EFL course on metacognitive strategy training. This group of students significantly improved their oral proficiency and the study confirmed that this success was partly due to an increased general awareness and use of oral communication strategies.

Taken together, the findings of the studies reviewed above show a positive relation between the teaching of LLS and improvement in learners' language skills; they also show the effectiveness of integrating explicit and direct strategy instruction into regular L2 courses (Chamot, 2004; Cohen, 2014; Grenfell & Harris, 1999; Oxford, 2011). For explicit, direct, classroom-based, integrated strategy instruction to be even more effective, it would be helpful to identify when a given strategy might be useful (Cohen, 2011; Oxford & Leaver, 1996). Explicit strategy instruction might involve modelling the strategy that is most useful for completing specific L2 tasks successfully, providing learners with time to practise the strategy that matches their preferred learning styles, and teaching learners how to evaluate whether a strategy is useful or not, and, importantly, finding out which strategies the students are already using.

2.2.4 Strategy Inventory for Language Learning (SILL)

The most frequently used instrument worldwide to gather information about how language learners go about learning a new language is the *Strategy Inventory for*

Language Learning (SILL). It was designed by Oxford (1990) and has two versions. One version, with 80 items, is designed for English speakers learning a new language. The other version, with 50 items, is designed for speakers of other languages learning English. The basic purpose of the SILL is to provide a general picture of learners' typical strategy use rather than their strategy use on a particular language task (Oxford, 1999b). The SILL's Likert-scaled ratings for each strategy item range from 1 to 5, with the poles being "never or almost never" to "always or almost always". The items in the SILL are grouped into six strategy categories: memory strategies, cognitive strategies, compensatory strategies, metacognitive strategies, affective strategies and social strategies, categories which were considered to be most consistent with students' patterns of strategy use (Hsiao & Oxford, 2002). The 50-item version of SILL is employed in this study because the target participants in this research are EFL university students in Macao.

This section has presented the various definitions and classifications of LLS and has reviewed a number of studies into LLS, which have sought to identify effective and well-suited learning strategies for language learners. There is also interplay between different factors impacting on LLS use, including a learner's innate characteristics, characteristics related to social background and acquired characteristics. Finally, the Strategy Inventory for Language Learning (SILL), which can be used to help understand learners' use of LLS, has also been reviewed. In the next section, learner beliefs about second language learning, which is the other very important concept in this study, will be discussed.

2.3 Language learners' beliefs about second language learning

Learner belief about language learning, one of the acquired factors discussed in Section 2.2.3.2.3, and a focus of the study reported in this thesis, is considered an important factor influencing the learning process and learning outcomes (Ellis, 2008). Part of the appeal of investigating learner beliefs is the notion that learner beliefs are likely to affect language learning behaviour. The first researcher to attempt to identify language learners' beliefs in a systematic way is Horwitz (1987). Horwitz pointed out that previous learning experiences and cultural background significantly influence language learner beliefs about language learning. To review the importance placed on learner beliefs in L2 learning, this section will begin by presenting definitions of learner beliefs, the relations between language learner beliefs and strategy use, the various factors affecting learner beliefs, and the measurement inventory (BALLI) used to identify learners' beliefs about language learning.

2.3.1 Definitions

Defining language learner beliefs is a difficult task because beliefs are dependent on context and on learners' intentions in different situations (Barcelos, 2003; Mercer, 2011; Peng, 2011; Woods, 2003). In other words, language learner beliefs are dynamic and subject to contextual factors. Nevertheless, a review of the literature does reveal that beliefs have been systematically categorised in terms of characteristics and approaches.

First, the characteristics of language learner beliefs are categorised according to whether they relate to folk linguistic theories of learning (Miller & Ginsberg, 1995), learner representations (Holec, 1987; Riley, 1994), language learner perceptions and the learner's philosophy of language learning (Abraham & Vann, 1987), metacognitive knowledge (Wenden, 1986, 1987), cultural beliefs (Gardner, 1988), or learning culture

(Jin & Cortazzi, 2006; Riley, 1997). Reviewing this classification system of defining characteristics makes two general observations possible. All definitions of beliefs about learning stress that these beliefs concern the nature of language and language learning, and the definitions emphasise the social and cultural nature of beliefs. They not only have a cognitive dimension but also a social dimension, which accounts for learners' interactions with others and with their cultural and learning environments.

Second, the various definitions of beliefs have been grouped by Kalaja and Barcelos (2006) and Ritzau (2013) on the basis of three approaches: the normative approach, the metacognitive approach, and the contextual approach. From the perspective of the normative approach, definitions of learner beliefs are related to students' cultural background, which, it is assumed, helps explain students' classroom behaviours. For example, Horwitz (1987) defines learner beliefs as "preconceived notions, myths or misconceptions" (1987, p. 126). The implicit assumption is that students have opinions and ideas about language learning, but their beliefs about language learning are sometimes unhelpfully or inappropriately held under the influence of their cultural background. As mentioned in Section 1.2.4, Macao tertiary students were prevalently affected by the authority-oriented culture with its origins in Confucianism. This culture was brought into the English classroom and has great impact on the English teaching methodology, which directly influences how Macao tertiary students learn English.

From the point of view of the metacognitive approach, definitions of learner beliefs are related to metacognitive knowledge, which implies that students' metacognitive knowledge constitutes their theories in action that help them to reflect on what they are doing and to develop their potential for learning. For example, Wenden (1999, p. 436) defines learner beliefs as a "subset of metacognitive knowledge" and as "knowledge

about learning, which influences their [learners'] approach to learning and the expectations they hold about the outcomes of their efforts" (Wenden 1998, p. 515). According to Wenden's definition, beliefs seem to work as a kind of logic, controlling consciously or unconsciously what learners do to help their L2 learning. From the perspective of the contextual approach, learner beliefs are recognised as part of students' experiences interrelated with their environment. For instance, Ellis (1999) defines beliefs as the lenses through which students frame their learning experiences, while Riley (1994, p. 12) defines beliefs as "representations" of conceptual tools for interpreting and perceiving experience. Ellis and Riley characterise beliefs as contextual, dynamic and social, which aligns with what has been found in Cephe and Yalcin's research (2015). When this contextual definition is applied, learner beliefs are seen as situationally conditioned, relational and responsive to context.

The defining characteristics of beliefs about language learning, and approaches for defining beliefs outlined above, draw attention to the importance of learning beliefs to the language learning process and can be used to describe the sorts of beliefs that we may encounter in language classrooms (Wesely, 2012). Our understanding of learning beliefs, however, has to move beyond a simple description of beliefs as predictors of future behaviour to an investigation of beliefs in context. We need to understand how beliefs interact with students' actions and what functions they play in students' learning experiences both in class and outside the classroom. Therefore, an investigation of what students know and believe must account for students' learning experiences and their learning context or environment. Therefore, to understand students' language learning beliefs, not only must the cognitive and metacognitive elements of beliefs be recognised, but so must the context in which they are learning English.

2.3.2 Language learner beliefs and strategy use

Student beliefs about language learning, whether to do with motivation, self-efficacy or notions about language learning, shape the types of learning strategies they use (Abraham & Vann, 1987; Bernat & Gvozdenko, 2005; Li, 2011; Mori, 1999; Oxford & Lee, 2008; Schunk, 1985; Wang, Spencer & Xing, 2009; Wenden, 1986a, 1987a; White, 2008). Helping students learn in fact means helping them to become more strategic, partly by helping them to change inappropriate preconceived beliefs, notions or prejudices about language learning (Holec, 1987; Fazilatfar, Damavandi & Sani, 2015). It has become increasingly clear that knowledge about language learning strategies is not sufficient to promote learners' achievement unless their motivational beliefs are developed to the point where they actually use this knowledge (Garcia & Pintrich, 1995; McKeachie, Pintrich, & Lin, 1985; Palmer & Goetz, 1988; Schutz, 1994). If students bring with them to the classroom poor or negative beliefs about language learning, they may take less initiative to become strategic learners (Horwitz, 1988).

To investigate the relation between learners' beliefs and strategy use, Braten and Olaussen (1998) surveyed 176 Norwegian college students in the second year of their teacher training about their beliefs in relation to goal orientation, self-efficacy and the theory of intelligence, resulting in three main findings. First, students who adopt learning goals are more likely to be cognitively engaged through learning strategy use than students who adopt performance goals. This finding is supported by related studies (Liao, 2006; Loewenet al., 2009; Hsieh, 2000; Meece, 1994; Park, 1995; Prince, 1996; Pintrich, 1989; Pintrich& De Groot, 1990; Yang, 1992). These studies have shown that students who pursue learning goals seek to develop their competence by investing

effort in their language learning, and they tend to value learning for its own sake, whereas students who pursue performance goals seek to demonstrate high competence by outperforming others and they tend to value ability over learning. Obviously, Macao tertiary students are of the second type because they are extrinsically motivated in learning English for examination and job purposes.

The second of the Braten and Olaussen (1988) findings is that students' self-efficacy beliefs about their ability to perform academic tasks are positively related to learning strategy use, which is consistent with the findings of related studies (Magogwe & Oliver, 2007; Meece, 1994; Pintrich, 1989; Pintrich & De Groot, 1990; Yang, 1992). The basic construct of self-efficacy seems to involve students' expectations of success based on confidence in their abilities to perform the task. It has been observed that highly efficacious students are confident about what they can achieve; set themselves challenges and are committed to achieving them; work harder to avoid failure; are highly resilient and link failure with insufficient effort or deficient knowledge and skills, which they believe they are capable of acquiring (Ching, 2002). Pajares and Schunk (2001), for example, showed that students who believe they are capable of performing tasks use more cognitive and metacognitive strategies, and persist longer, than those who do not. Similarly, a variety of studies link self-efficacy beliefs with self-regulated learning variables and the use of learning strategies (Feather, 1988; Fincham & Cain, 1986; Pape & Wang, 2003). According to Wang, Schwab, Fenn and Chang (2013), self-regulation and self-efficacy are related constructs in which self-efficacy is perceived to be a sub-component of self-regulation. In other words, self-regulation reflects any effort individuals make to modify their learning strategies in order to achieve desirable learning outcomes. Hence, highly self-efficacious language learners with strong self-regulation tend to employ learning strategies more

frequently (Luszczynska, Gutierrez-Dona, & Schwarzer, 2005). With regard to the self-efficacy, it appears that Macau tertiary students have not developed a sense of self-efficacy because of their previous experiences of learning English, which may cause their low use of self-regulatory strategies in language learning.

The third research finding reported by Braten and Olaussen (1988) shows that students' theory of intelligence in relation to language learning shapes strategy use. Some students favour an incremental theory of intelligence, that is, a belief that intelligence is a malleable, increasable and controllable quality, while other students have constructed an entity theory and believe that intelligence is a fixed or uncontrollable trait (Dweck & Leggett, 1988). The study by Braten and Olaussen (1988) showed that an incremental theory of intelligence was significantly related to reported use of learning strategies. That is probably because students with an incremental theory of intelligence are more optimistic and tend to make use of failure to inspire them to work harder and to look forward to being exposed to new information that could increase their ability to overcome the failure. These students do not interpret failure as a lack of ability but as a stepping-stone to improving their ability. On the other hand, students with a fixed entity theory of intelligence tend to attribute failure to lack of ability. This outcome attribution removes individuals' control over the situation (Dweck, 2000). They perceive that they do not have the ability, even when they succeed, resulting in lower self-efficacy. The belief that a lot of effort is required for a given task, especially a very challenging one, means that when they have to exert more effort when faced with a challenging task, they question their ability and competence to accomplish it (Hong, Dweck, Hi-yue Chiu, Derrick, & Wan, 1999; Schunk, 1981). Thus, it is students with an incremental theory of intelligence who report more strategy use by virtue of their high self-confidence in language learning.

With regard to the relation between belief about English learning and strategy use, Mohammadi, Birjandi and Maftoon (2015) indicate that strategy-rich classrooms can enrich students' beliefs and develop their cognition about language learning, which aligns with what has been found in previous studies (Abedini, Rahimi, & Zare-ee, 2011; Chang & Shen, 2010; Li, 2010; Zare-ee, 2010), and demonstrates that a positive relation between learners' belief and their strategy use could be formed in an effective learning environment. Furthermore, Mohammadi and his colleagues also point out that learners' beliefs can change in the short term, which is also in line with the results of a few studies that ended up with significant changes in learners' beliefs at 1-year intervals or shorter (Amuzie & Winke, 2009; Lim, Pagram, & Nastiti, 2009; Sugiyama, 2003; Tanaka & Ellis, 2003). This implies that learners' unnecessary beliefs about language learning could be shaped by language learning experiences and contexts as well as by their language teachers (Cephe & Yalcin, 2015), as will be discussed in the next section.

In conclusion, the above findings emphasise the potential relation between students' learning beliefs and strategy use in language learning. They also indicate that students' strategy use depends on specific types of beliefs, in particular beliefs that lead to students having intrinsic goals, high self-efficacy and an incremental theory of intelligence. Therefore, helping students to construct these beliefs about language learning is likely to help them become strategic learners.

2.3.3 Language learner beliefs and other influential factors

In addition to studies exploring the relation between learners' beliefs and strategy use, relations between learners' beliefs and other factors, including teaching approaches,

political and socio-cultural contexts, motivation and expectation, and past learning experiences have also been studied.

The relation between teaching approaches and students' learning beliefs is emphasised in a range of studies. One of these studies was conducted by Sakui and Gaies (1999) who surveyed 1,300 Japanese university students and found a strong relation between students' learning beliefs and the teaching approaches they experienced. More specifically, Entwistle, Skinner, Entwistle, and Orr (2000) and Trigwell, Prosser, and Waterhouse (1999) compared the beliefs about language learning of students in student-centred classrooms and students in teacher-centred classrooms. They reported that a more student-centred approach to teaching stimulated students to adopt a deep approach to learning; that is, learning in which students gain a deeper understanding of the learning content. If a teacher adopted a more teacher-centred approach, focusing on transmitting knowledge, students were more likely to employ a surface approach to learning, characterised by a focus on reproduction.

The choice of the students' learning approaches in the aforementioned studies implies that to a large extent, the teaching approaches used influenced their learning beliefs. In a student-centred classroom, teaching attention is paid to the transmission of knowledge and the focus is more on the students and their learning-process than on the teacher and his or her teaching (Marton & Säljö 1976; Entwistle & Ramsden 1983; Biggs 1987). The teaching in student-centred classrooms can be seen as interactive, that is, in interaction with the students' existing conceptions. The teacher tries to recognise the students' different needs and takes these needs as a starting point when planning the course and, thus, uses more diverse teaching methods than teachers who adopt a teacher-centred approach to teaching (Trigwell & Prosser 1996; Prosser & Trigwell

1999; Trigwell, Prosser, & Waterhouse 1999; Kember & Kwan 2002; Coffey & Gibbs, 2002). In the student-centred classroom environment, students are exposed to more active learning opportunities and they are more willing to search for meaning in the task and integrate task aspects into a whole. Students' learning becomes more self-encouraged by virtue of their interest in the learning task. Gradually the adoption of a deep learning approach is cultivated, which is driven by students' intrinsic motivation to attain meaning and understanding.

In contrast, in a teacher-centred classroom, teachers conceive of teaching as transmitting knowledge; teachers concentrate on the content of teaching and how they teach. Students are seen as somewhat passive recipients of that information, and learning outcomes are expressed in quantities rather than in qualitative terms without concern for the students' understanding of knowledge. Under this learning environment, students perceive that a surface approach that relies on memorisation and reproduction is helpful, and they do not seek further understanding of the learning material as they do not see a need for doing that. In other words, students who adopt a surface approach to learning are driven by the extrinsic motivation to obtain simply a paper qualification or a reward, which factually mirrors the learning approach being used by many Macao tertiary students. If learners' learning motivation is demonstrated to be related to the use of surface approach, it can help predict what types of relevant strategies Macao tertiary students use and also how the students' beliefs about language learning are related to their strategy use in learning English, which are the research questions one and three in this study.

To investigate the effect of the political and socio-cultural context on students' learning beliefs, Diab (2006) surveyed 284 EFL university students in Lebanon and found that

the political and socio-cultural context of foreign language education was related to students' beliefs about the difficulty of language learning. Due to past colonisation by France, the French language became an official language in Lebanon while in secondary schools English was treated as a foreign language. Most students do not generally view their French classes as very serious and consequently do not devote much time and energy to studying French, while, at the same time they believe that it is essential for them to become as proficient as possible in English, a language they are likely to need for both academic and professional reasons; in other words, the motivation to learn English is instrumented (Gardner, 1985, 2007). For this reason, they tend to devote more time and effort to learning English, a situation that fosters the popular belief among the students in Lebanon that French is a more difficult language to learn than English.

The political and social context in Hong Kong and Macao can also be related to the beliefs about learning English of students in these territories. Both Hong Kong and Macao are in the early postcolonial period since being returned by Britain and Portugal respectively to Chinese rule. Nowadays, English is learnt as a foreign language in both Hong Kong and Macao but learners in these two regions view English very differently. According to Bray and Koo (2004), Hong Kong students perceive English learning to be easier and more accessible than their Macao counterparts do, because English in Hong Kong is used instrumentally, including in official contexts. Because of Hong Kong's colonial background, Hong Kong students are exposed to many English learning opportunities inside and outside the classroom. In Macao, however, for political reasons, only Chinese and Portuguese are official languages. Macao students do not view the English language as useful and easy because they have very few opportunities of exposure to this language except in schools. They believe that learning

Putonghua (the official dialect of Mainland China) is much more important (Botha, 2013; Yee, 2014). These studies show that social and political contexts do have a great impact on students' learning beliefs. Similarly, Diab (2000, 2004) and Joseph (2004) emphasise that cultural, social and political backgrounds affect students' beliefs about language learning, and that these types of factors cannot be overlooked in pedagogic practice. In addition, this unique language context helps to establish the rationale not only for this research, but also draws on similar research studies elsewhere.

Two other factors influencing students' learning beliefs are motivation and expectation. In their study of 30 secondary school students in Malaysia, Peng and Hui (2012) found these students' perceived learning of English positively. While they were motivated to learn English, they did not have much self-confidence or faith in their ability to learn English. This finding is in line with that of Nikitina and Furuoka (2006), who found that, when compared with beginner students, most intermediate students believed that English was difficult because they were encountering more complex linguistic structures and skills. In other words, senior students at a higher level of secondary education would tend to believe that English is a more complicated language, or subject, by virtue of the more difficult linguistic structures they encounter in their studies. However, according to Peng and Hui, when students think that English is too hard for them to cope with, they lose interest and their motivation to continue learning the language, or vice versa. Peng and Hui also found that the student participants in their study expected to master English. For example, the students expected that it is best to learn English in an English-speaking environment, so they strongly believe that it is ideal to learn English in western countries or at least to stay or talk more with English speakers in Malaysia. The students also expect that university graduates who are proficient in English will have a better chance of being employed by multinational

companies under Malaysia's rapid industrialisation. They, therefore, strongly believe that English is very important for them and the mastery of English can provide them with better job opportunities, which is very similar to the situation in Macao, as discussed in Chapter One.

The final factor shaping learner beliefs to be discussed in this section is learners' past learning experience, which is claimed to have a great effect on students' learning belief. A relevant study has been conducted by Fujiwara (2012), researching 189 Thai university students of the Japanese and Chinese languages. All the student participants were from different secondary education backgrounds, including local Thai high schools, international high schools in Thailand, bilingual high schools in Thailand, and high schools in foreign countries. The results of this study suggested that students' past learning experiences were potential determinants of language learning beliefs and indicated that similar beliefs about language learning were shared by the participants with similar past learning experiences. In another study, Mori (1999) suggested that learners' beliefs might be modifiable through instructional interactions. Mori discovered differences in terms of the language learning beliefs between beginner- and advanced-level learners. Mori argued that rich learning experiences might have helped the learners to refine their beliefs about language learning. This argument implies that language learners of the same level share similar beliefs about language learning. This modifiable nature of learners' beliefs was also emphasised by Schommer (1990), who investigated students' beliefs about knowledge and knowing in general. In their investigation of Thai university students, Fujiwara and Phillips (2006) claimed that education appears to play an important role in the development of beliefs about knowledge and knowing in general. The aforementioned studies further signify that students' language learning beliefs can be altered through instructional classroom

interactions as much of the learners' learning experiences took place in classrooms. It is useful to consider learners' experiences of learning English in the classroom as part of the study of their beliefs.

In sum, students' beliefs are also related to many potential factors as reported above, including teaching approaches, the political and socio-cultural context, motivation and expectation, and past learning experience. Given that learning beliefs are crucial in language learning, these influential factors should be considered while improving the learning and teaching of a L2, especially in Macao.

2.3.4 Beliefs About Language Learning Inventory (BALLI)

As detailed in previous sections, learners' beliefs about language learning have a demonstrable impact on language learning outcomes. In order to investigate issues related to learners' beliefs, Horwitz (1987) developed an instrument named *Beliefs About Language Learning Inventory* (BALLI), an instrument used in this study. The BALLI contains thirty-four items and assesses students' beliefs about language learning in five major areas: (1) foreign language aptitude, (2) the difficulty of language learning, (3) the nature of language learning, (4) learning and communication strategies, and (5) motivation and expectations. The BALLI consists of five-point Likert-scale questionnaire items requesting responses ranging from "strongly agree" to "strongly disagree".

The BALLI has been proved to be very successful in identifying student beliefs about language learning (Altan, 2006; Bacon & Finnemann, 1992; Ghobadi, 2009; Hu, 2010; Kbodadady, 2009; Keedi, 2012; Kern, 1995; Kunt, 1997; Mantle-Bromley, 1995; Nikitina & Furuoka, 2006; Oh, 1996; Peacock, 2001; Rieger, 2009; Sakui, 1999; Samimy & Lee, 1997; Siebert, 2003; Tercanlioglu, 2005), and hence it has also been

widely employed to investigate the links between beliefs and other variables, including the use of language learning strategies (Hong, 2006; Li & Li, 2015; Park, 1995; Yang, 1992, 1999).

Where the BALLI has been criticised, however, is in relation to its validity and the ambiguity of the wording of its items. The validity of BALLI has been questioned on the basis that it lacks statistical backing because its conceptualisation is derived from trainee teachers instead of language learners (Mori, 1999). In this regard, the BALLI inventory has been re-examined and has been ascertained to have sufficient evidence of reliability and validity to be used in measuring students' beliefs in language learning (Nikitina & Foruoka, 2006; Li & Li, 2015).

The BALLI was created using a normative approach, which represents a static approach to describing and classifying types of beliefs with less emphasis on the development of beliefs (Ritzau, 2013). Hence, language learners answering the BALLI questions do not have the chance to express beliefs in their own words. When filling out the questionnaire, learners will probably find some questions more or less relevant, and the questionnaire might leave out topics that could be relevant to specific learners. Furthermore, the BALLI has been questioned in terms of whether the items relate to intention or motivation, or whether they are simply learning preferences or beliefs. This potential confusion in relation to the BALLI items might cause students' to have different understandings of what counts as a belief about language learning (Kuntz, 1996). For example, can the item "I enjoy practicing English with the English-speakers I meet" be understood as a belief or is it simply a report of one's preference when practising English? Is the item "I believe that I will learn to speak English very well" a matter of belief or solely an intention or motivation? In this regard, Ritzau (2013)

suggested that a combination of different methods and different types of data such as open interviews or observation is essential for improving and refining our understandings of language learner beliefs.

Despite the aforementioned criticisms, Nikitina and Foruoka (2006) point out that numerous research studies have employed the BALLI as an instrument and this may attest to researchers' general agreement with the separation of beliefs into different areas as proposed by Horwitz.. The BALLI has the potential to be helpful to teachers both in determining the popular beliefs held by their students as well as in identifying minority groups or individuals with differing opinions. Furthermore, the extensive application of the BALLI in a considerable number of research studies means findings can be compared across similar studies in different cultural contexts. Hence, the BALLI is employed in this study.

2.4 Understanding the relations between learner beliefs and their strategy use: Biggs' 3P Model of Language Learning

The formation of students' learning beliefs and their choice of learning strategies are two of the crucial elements to be experienced in students' information-processing (Park, 1997; Rao, 2012; Griffiths, 2013). The preceding review suggests that the two concepts seem to be related to each other. Biggs' (1993, 1996) 3P model (Presage, Process, Product) of language learning also makes a theoretical link between them.

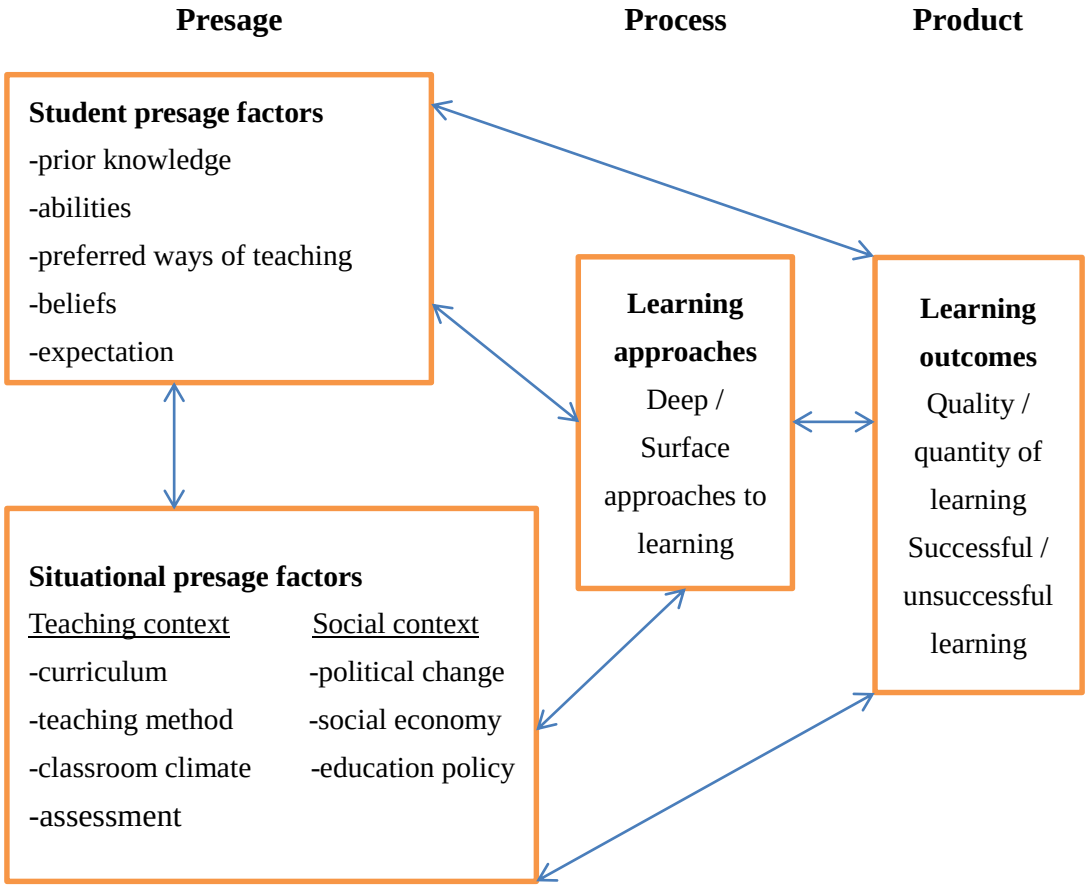


Figure 2.1 The 3P Model of Language Learning

The 3P model shown in Figure 2.1 consists of four components: (1) a presage component relating to factors which predict students' language learning beliefs and strategies, such as their prior knowledge, abilities, preferred ways of learning, beliefs and expectations; (2) a presage component relating to situational factors which predict students' current language learning beliefs and strategies, including the teaching context such as curriculum, teaching method, classroom climate and assessment, and the social context such as political change, social economy and education policy; (3) a process component relating to learning-focused activities such as surface or deep learning approaches employed in the classroom; and (4) a product component relating

to learning outcomes which reflect how much or how well the students gain from the learning process.

Students' presage factors at the presage stage, as shown in Figure 1, are related to their learning approaches at the process stage. One of the student presage factors is beliefs, which is the focus of this study. Biggs (1993, p. 317) claimed that "The link between a person's beliefs about what learning is, and how that person will engage a task, is a strong one." Biggs's claim helps to strengthen the relation between students' beliefs and their strategy use in language learning, as stressed in this study. At the process stage, the student will choose either the surface approach or the deep approach to tackle their tasks in language learning. According to Biggs, students' extrinsic learning motivation and their surface strategy use comprise the surface approach in which students carry out the tasks for either positively or negatively reinforcing consequences; while students' intrinsic learning motivation and their deep strategy use comprise the deep approach in which students particularly learn for interest. Although Biggs did not specifically mention which strategies students might use within the two types of learning approaches, he stated that for surface learners, "the strategy usually adopted is based on rote learning more commonly, the surface approach is used with less evidence of metacognition" (Biggs, 1993, p. 311). Biggs' implication about surface learners' strategy use has been supported by other researchers (Holschuh & Aultman, 2008; Oxford, 2011; Vansteenkiste et al., 2004; Young, 2008, 2011). As mentioned in Section 1.2.5, rote-learning has been found to be prevalent among Macao tertiary students, and this indicates that a majority of Macao students employ a surface approach at the process stage of language learning.

For deep learners, Biggs (1993, p. 312) has stated that they will:

1. possess a great deal of relevant content knowledge;
2. operate at a high, or abstract, level of conceptualisation;
3. reflect metacognitively on what is to be done, using optimal strategies for handling the task;
4. enjoy the process;
5. be prepared to invest time and effort.

The aforementioned learning characteristics for deep learners align with Oxford's (1990) description of learners' strategy use. Learners who employ a deep approach to learning, as shown at the process stage, may be more strategic than learners who employ the surface approach. It appears that deep learners will choose appropriate learning strategies for various learning tasks and will be informed by the outcomes of their engagement in the process about the appropriateness of their choice of strategy.

Biggs' 3P model shows that student factors, such as their learning beliefs, are shaped by their previous learning experiences from situational contexts, including school, university, and society. For this study, the presage stage is not simply restricted to teaching contexts but is further extended beyond the classroom to account for the wider social context in Macao, characterised by political change, the economic boom, and the government's language policy, as discussed in Section 1.2, and how these social factors influence students' beliefs about learning English. Hence, Macao tertiary students' language learning beliefs are considered in relation to both the teaching context and the social context as a starting point for exploring the causes of their non-strategic language learning.

The 3P model is also useful for explaining students' progression from their previous English language learning experiences, the presage stage (e.g. which forms their beliefs

about learning English), to their present English language learning preferences, the process stage (e.g. which accounts for the approaches or strategies they select when learning English), in terms of the relations between students' learning beliefs and strategy use; that is, this model can be used to explain how students' choice of language learning strategies at university is shaped by their beliefs about language learning gained through their previous learning experiences. Biggs 3P model further strengthens the rationale for this study, which aims to explore the relation between students' beliefs and strategy use in English learning.

2.5 Conceptual framework

This study draws on three frameworks: Horwitz's (1987) framework for understanding beliefs about English learning; Oxford's (1990) framework for understanding strategy use in English learning; and Biggs' (1993) 3P model of language learning for understanding beliefs, strategies, and the relations between students' beliefs and strategy use in English learning. In this study these three frameworks have been used as the basis for exploring whether the unsatisfactory English language learning outcomes of Macao tertiary students, as described in Section 1.2.5, are related to the student factors of beliefs about English learning and their strategy use.

Horwitz's (1987) framework, which is reviewed in Section 2.3, is useful for identifying Macao university students' beliefs about language learning. In this framework, both the previous learning experiences of students and the sociocultural context of Macao, including the political change, the economic boom, and the government's language policy, are important to the formation of their learning beliefs. In this study, the investigation of the language learning beliefs of Macao university

students takes into account the students' secondary education experiences including the traditional translation-grammar teaching method and result-oriented examination regime (Biggs & Tang, 2007; Carson, 1992; Connor, 1996; Shi, 2006; Young, 2009). It also considers their Chinese cultural context, which is characterised by passive and dependent learning in the classroom (Atkinson, 1997; Ballard & Clanchy, 1991; Chan, Spratt & Humphreys, 2002; Fox, 1994; Gan, 2009; Kumaravadivelu, 2003; Lantolf, 2000; Mok et al., 2007; Wu & Singh, 2004; Shi, 2006).

Oxford's (1990) framework for strategy use, which is reviewed in Section 2.2, has been adopted to capture the various strategies Macao university students follow in their English language learning. The advantage of this framework is that it provides a clear taxonomy of strategies, both direct strategies, including cognitive, compensation and memory strategies, and indirect strategies, including social, affective and metacognitive strategies. This typology of strategies can be used to help describe the study participants' strategy use and to facilitate the correlation analysis, as will be discussed below.

A close relation between students' learning beliefs and strategy use is suggested in the literature, for example, Horwitz (1987) as in Section 2.4. Biggs' presage-process-product model (1993) also supports this understanding. According to Biggs (1993), the presage stage involves the beliefs about language learning students bring to their classroom, while the subsequent stage, namely, the process stage, accounts for how students handle classroom tasks and how they plan their learning for the long term. This would include strategies. Following this model, students' learning beliefs and their strategy use are inherently connected. A correlation analysis is

therefore necessary to verify empirically the relationship between learning beliefs and strategy use.

2.6 Summary of the chapter

Chapter Two has reviewed definitions and classifications of LLS from the 1970s to present. It has also reviewed relevant studies of the critical role of language learners in the learning process, and how learners can shape their own learning most effectively in terms of their choice of learning tasks and of learning strategies that facilitate learning autonomy. Previous studies of LLS were reviewed from five perspectives: (1) learning LLS from successful learners, (2) LLS providing greater metacognitive control over the learning process and the effects of the relationship between strategy use and other variables; (3) how factors such as age, gender, personality, learning styles, motivation, belief, language proficiency, cultural background, career orientation, and study programmes affect learners' choice of LLS; (4) how to encourage and guide language learners to master and select LLS in their language learning; and (5) the SILL measurement inventory designed by Oxford (1990).

In addition, learner belief about language learning, which is a major influential factor affecting students' strategy use, was reviewed in this chapter in terms of its various complex definitions, its relations with strategy use and other influential factors such as teaching approaches, political and socio-cultural context, motivation and expectation, and past learning experience; as well as the measurement inventory, BALLI, designed by Horwitz (1987).

Furthermore, the concept of the 3P model has been reviewed in Chapter Two. This model explains the relation between students' beliefs and strategy use in terms of three stages. It was found that Macao students have a positive attitude towards English

learning but their English learning approach was simplistic due to learning beliefs shaped by cultural background and prior learning experiences. This learning phenomenon accords with the three-stage structure of Biggs' 3P theory model of language learning. Moreover, this chapter has reviewed relevant studies which propose a positive relation between students' strategy use and beliefs about language learning. In order to further investigate this relation in the context of English teaching and learning in Macao, the conceptual framework on which this study is based incorporates Biggs' 3P model and prior studies conducted in other Asian contexts. This conceptual framework has been used to design the methodological framework and the research methods presented in Chapter Three.

Chapter Three

3 Research Methodology

3.1 Introduction

This chapter sets out the methodological framework of this study. It discusses the design of the mixed method approach used to undertake the study, including the steps taken to conduct the quantitative and qualitative phases of the mixed method. It also presents the instrumentation used in this study, the pilot study, participants involved, and the procedures of the data collection and data analysis.

3.2 Research design

This study investigates Macao students' beliefs and their strategy use in English learning, and the relations between them, which comprise complex attitudes and behaviors involving complicated variables (Oxford & Lee, 2008). To explore this complexity effectively, neither quantitative research methods nor qualitative research methods alone would be enough, and so the Mixed Method Approach is adopted.

Mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research, and offers more evidence for studying a research problem than either quantitative or qualitative research alone (Creswell, 2011). In this study, students' beliefs and strategy use about English learning are investigated through questionnaire survey and interviews. As Nardi (2003) suggests, a self-reported questionnaire is best combined with interviews to provide a more comprehensive picture of the complex behaviors and attitudes of each respondent. Oxford and Lee (2008) also argue that the study of complicated variables could be

introduced more widely into research by using mixed methods because an interpretation within a mixed method study has the potential to empower the participants to further uncover the meanings inherent in their responses to the quantitative study (Creswell, Shope, Clark, Vicki & Green, 2006). Hence, a mixed method research design was adopted in order to answer the research questions on which the study reported in this thesis is based.

The mixed method approach of this study follows an explanatory sequential design, with a quantitative phase first, followed by a qualitative phase, because it is optimal for the research questions in this study. The overall purpose of this design is that qualitative data help explain or build upon initial quantitative results (Creswell, 2011).

During Phase One, the quantitative approach was designed, and the English Learning Questionnaire Survey (see Appendix 1) was developed. The questionnaire is made up of three parts: Personal Background Information section (PBI), Beliefs about Language Learning Inventory (BALLI) and Strategy Inventory for Language Learning (SILL). The quantitative data collected at this phase would provide information about students' beliefs about learning English and their strategy use, as well as the relations between these; in other words, the quantitative data would help answer the research questions as addressed in Section 1.5. The numerical item scores of the questionnaire survey were to be processed using a descriptive analysis, a factor analysis and a Pearson's correlation analysis, while the two open-ended questions relating to students' additional beliefs and strategy use and the interview findings were to undergo a thematic analysis.

For Phase Two, the qualitative approach, semi-structured one-to-one interviews (Cohen, Manion & Morrison, 2000; Denscombe, 2004; Payne & Payne, 2004; Rubin

& Rubin, 1995) with students and lecturers were arranged. The designed interview questions used and the qualitative data gained during this phase would provide an in-depth understanding and explanation of Macao tertiary students' beliefs and strategy use in their learning of English, as well the relations between these. The design of the interview questions will be discussed in detail in the data collection section.

3.3 Description of instruments

In this study, the questionnaire survey titled the English Learning Questionnaire Survey (see Appendix 1) was employed. It is composed of three sections. The first section is the Personal Background Information section (PBI), designed for the Macao tertiary context. The second section is made up of items from Horwitz's (1987) Beliefs About Language Learning Inventory (BALLI) (see Appendix 3). The third section is made up of items from Oxford's (1990) Strategy Inventory for Language Learning (SILL) (see Appendix 4).

All sections of the questionnaire were translated into Chinese (see Appendix 2) and pilot tested (Nardi, 2003) before use. Although the original questionnaires have not been used in Macao before, they have been employed in many relevant studies conducted in Asian countries with similar EFL learning background, including China, Taiwan, Korea, Japan and Iran, suggesting their suitability and applicability in the Macao context.

Section one of the English Learning Questionnaire Survey is the Personal Background Information section (PBI), which is designed as multiple-choice questions. The PBI is made up of 13 items designed by the researcher so the student participants would find

it easier to respond to questions relevant to them. The PBI was designed to collect more data about the students' background and past experience with English learning. It collected information about their gender, age, study major, English proficiency and some of their English learning attitudes. This information contributed to the interpretation of the quantitative results of this study, especially the relations between beliefs and learning strategy use.

Section two of the English Learning Questionnaire Survey is mainly adopted from Horwitz's (1987), Beliefs About Language Learning Inventory (BALLI) which is used to assess students' beliefs in five major areas: (1) foreign language aptitude, (2) the difficulty of language learning, (3) the nature of language learning, (4) learning and communication strategies, and (5) motivation and expectations. In section two of the survey, the students were asked to respond to 35 items. The first 34 statements were from the original BALLI and the students have to decide if they: (1) strongly agree, (2) agree, (3) neither agree nor disagree, (4) disagree, or (5) strongly disagree with each statement. The final statement, Item 48 is an open-ended question designed by the researcher:

> *List your other beliefs about English learning that are not mentioned in section one.*

This open-ended question is created to elicit more of the students' learning beliefs, in other words, beliefs that were not listed in the questionnaire.

Section three of the English Learning Questionnaire Survey is the Strategy Inventory for Language Learning (SILL). SILL was developed by Oxford (1990) for speakers of other languages. In section three of the questionnaire, the students were to be asked to respond to 50 items. The first 49 statements are from the original SILL and the final

statement. The students are asked to rate the statements on a five-point scale from, “I never do this” to “I always do this”. Item 98 is an open-ended question designed by the researcher:

> *List your other English learning strategies that are not mentioned in section two.*

In this final open-ended question, students are asked to provide more information about their language learning strategies.

3.4 Pilot study

Because the combination of the three questionnaire sections as outlined in the previous section had never been used before, the entire questionnaire survey was tested in a pilot study. A pilot test was implemented to indicate where the main research project could possibly fail as well as possible improvements to the data collection methods and analytical tools before their application in the main study (Cohen et al., 2000; Kumar, 2005; Nardi, 2003). In addition, the target students in this research were first-year undergraduates who had just completed their high school education. Because this group of students might have less experience in responding to such a long questionnaire survey, a pilot study was felt to be crucial before embarking on the main study. The pilot study also helped to check testing procedures and the time students needed to complete the questionnaire, to eliminate ambiguities or difficulties in wording, and to gain feedback on the questionnaire and its format.

The whole questionnaire was translated into Chinese to ensure that the student participants would understand the questions and information. The Chinese translation of the *Language Learning Questionnaire Survey* was reviewed by Miss Wong, a

freelance Chinese-English translator, as well as an English lecturer at Macao University of Science and Technology (MU). She helped to check the accuracy of the Chinese translation of the word choice, expressions and grammar.

A total of 20 first-year undergraduates from my English class at MU, who were excluded from the final sample of the survey, took part in the pilot study in January 2012. They were invited to complete all three sections of the survey, including the PBI, BALLI and SILL. Then, I discussed the whole questionnaire with them, including any improvements they thought might be necessary to align the questionnaire more closely with Macao students' reading habits and word use. The three parts of the questionnaire were then adjusted as follows:

1. Question 28 "If someone spent one hour a day learning a language, how long would it take them to speak the language very well?" was revised as "If an undergraduate with average English level spent one hour a day learning a language, how long would it take them to speak the language very well?"

2. Question 67 "I look for words in my own language that are similar to new words in English." was clarified by redrafting it as: "I look for words in my own language that are similar to new words in English, including the pronunciation and meanings."

3. The direction of the questionnaire scales was originally from negative to positive. However, the students felt more comfortable when the direction was from positive to negative. So the direction was adjusted from (1) positive to (5) negative in the final draft.

3.5 Participants

In this study, a total of 366 first-year undergraduates and five English lecturers at MU participated in both the quantitative and the qualitative phases. This section describes the background information of the participants and the criteria for selection.

3.5.1 Student participants

The target students in this research are first year undergraduates who have just completed their studies at Chinese-medium high schools in Macao. In these high schools Chinese is the medium of instruction except when studying English. The students were enrolled in the Basic English programme at MU prior to embarking on the university English programme because their written entrance examination results were unsatisfactory. The entrance examination paper was designed by the English lecturers at MU to assess the four English macro skills (reading, writing, listening and speaking) as well as knowledge of English grammar. Once the students have completed the one-year Basic English programme with a satisfactory assessment, they will be eligible to continue the university English programme.

The cohort of students participating in the study can be described as a non-probability availability sample (Bernard & Ryan, 2010; Cohen et al., 2000; Kumar, 2005) because they were students of my colleagues at MU, and therefore easier to access. First-year undergraduates were also selected as the sample group in this study because they had no other tertiary learning experience. In contrast, the beliefs about language learning of undergraduates in second to fourth year might have already changed due to their accumulating tertiary learning experience (Abraham & Vann, 1987).

A total of 366 undergraduates in MU participated in the questionnaire survey. The questionnaires of twenty of these students, however, were invalid because of errors in the responses or because of missing information. The final sample, therefore, consisted of 346 students, comprising 208 males and 138 females. The students ranged in age from 17 to 24, with an average age of 21.5. They were all first-year undergraduates studying in different Schools at MU. All student participants had finished their formal secondary school education in Macao, including three years of kindergarten, six years of primary education and six years of secondary education. In Macao, English teaching starts at kindergarten and so these students had been learning English for about fifteen years.

The students who had participated in the questionnaire survey were invited to participate in the follow-up interviews. Those who were willing to participate were given an *Information Sheet for Participants* (see Appendix 5) with Chinese translation (see Appendix 6), which explains the aim and the nature of the study. Moreover, all student interview participants would be given a *Consent Form for Participants* (see Appendix 7) with Chinese translation (see Appendix 8) prior to the face-to-face interviews. They were informed that their demographic information would be used under pseudonyms and that the interview transcripts may be published. The students also understood that they could withdraw from participation in the interviews at any time.

Participation in the questionnaire and interviews was voluntary, anonymous and would not cost the participants any money. With the help of the English lecturers of the six classes, a total of 12 students showed their interest and willingness to participate in the interview. These students were further contacted by telephone to

confirm their willingness, and only those who handed in both the questionnaire and the consent form were counted as the eligible student participants for the interviews. Eventually, the 12 participants, 5 female and 7 male first-year undergraduates, were invited to participate in the interviews. Each of the students had a face-to-face interview with the researcher to explain their responses in the questionnaire survey.

3.5.2 Lecturer participants

In order to further interpret the questionnaire survey results and the findings, five English lecturers at MU, including one male and four female lecturers, were invited to participate in the interviews. The English lecturers in the study also belonged to an availability sample because they were the researcher's colleagues at the university. They were selected to participate in this study because all these lecturers were teaching the first-year undergraduates who were the target students in this research. All lecturer participants were teaching different English programmes involving the four English skills: listening, speaking, reading and writing. They had from two to nine years of experience in teaching English to first-year students at MU. Because of their experience, this group of lecturers would better understand the local first-year undergraduates' English learning needs.

Moreover, the lecturer participants had taught at secondary schools in Macao prior to teaching at the tertiary level. Therefore, they would better understand the English learning of the target students in this study, not simply their learning at university but also the learning development of Macao students from secondary school to university. The male lecturer was a native speaker of English, who had been teaching English at MU for nine years. The other four female lecturers were Chinese with six to nine years of teaching experience at MU. Both local and native English speaking lecturers

were chosen because lecturers from different nationalities may have different points of view regarding the same issue, which, therefore, provides a more balanced overall picture of the situation in Macao.

All the lecturer participants were invited personally by the researcher to join the study. Those who were willing to participate were given an *Information Sheet for Teacher Interviewees* (see Appendix 9), which explains the aim and the nature of the study. Participation in the questionnaire and interviews was voluntary, anonymous and would not cost the participants any money. All information they provided would be confidential and would only be accessible to the researcher and used solely for this research. All data would be stored securely with access to the researcher only and destroyed after five years of its collection.

Moreover, all lecturer interview participants would be given a *Consent Form for Participants* prior to the face-to-face interviews. They were informed that their demographic information would be used under pseudonyms and that the interview transcripts may be published. The lecturers also understood that they could withdraw from participation in the interviews at any time.

3.6 Data collection

Both quantitative and qualitative data were collected at MU. The school authorities and the English lecturers were contacted in advance through emails (see Appendix 10) and were then contacted again in person to gain confirmation of approval. The data were collected using two techniques: the questionnaire survey and the in depth interviews.

In this study, the *English Learning Questionnaire Survey* was designed to collect data about tertiary students' beliefs and strategies use. The student participants were asked to respond to 98 items in the survey in relation to their beliefs about learning English and the strategies they used to learn English, including two open-ended questions on the BALLI section and the SILL section respectively. On the day of the questionnaire survey, the English lecturer of the survey class introduced me to the class and encouraged the students to cooperate. The questionnaire copies, together with the *Information Sheet for Participants*, were delivered to each student in the English class with the English lecturer's permission. Then I explained to the students in Chinese the purpose of the questionnaire survey and the instructions for completing the survey, including the structure of the survey comprising a 5-scale survey and two extra open-ended questions (item 48 and item 98). The students were also informed that all the data collected would be kept confidential and that participation in this survey was entirely voluntary. The students could ask clarification questions during the whole process. It took each student approximately 35 minutes to complete the questionnaire. A questionnaire collection box was prepared for each survey class. The students put their questionnaires into the box themselves when they finished. After the completion of the survey, the whole box of the questionnaires would be sealed by one of the students under my instruction and then the box was collected by the researcher. The researcher did not access any of the questionnaire papers until all the students left, in order to protect their identities.

Moreover, a total of 12 tertiary students out of the 346 survey respondents were interviewed to provide qualitative data for this study. Only those participants who had been learning English from kindergarten in Macao were selected. The student responses in the interview would help to uncover the factors underlying the problems

Macao students faced when learning English. The 12 participants were asked to sign a *Consent Form for Participants* prior to the interviews. On the day of the student interview, the *Information Sheet for Participants* and the interviewing process were clearly explained to each student participant. The students were asked for demographic information and their past English learning experience in order to examine relevant factors that might affect students' learning beliefs and strategy choice. Then, they explained the beliefs they held about learning English and the strategies they used to learn English, as well as the relations between these. The student participants could make any comment about the study results, no matter whether they agreed or disagreed with these results. The students were also asked to share opinions, from their points of view, about English education in Macao. The questions for the student interviewees are shown in Appendix 11.

The interviews were audio recorded and transcribed with permission of the participants, and organised under their pseudonyms. The interviews were conducted in Chinese so that the participants were able to express themselves more freely and openly in their mother tongue (Fontes, 2008), and thus more information could be obtained.

Apart from the student interviews, a total of five English lecturers from MU were also interviewed in this study to collect qualitative data. On the day of the lecturer interview, the *Information Sheet for Participants* and the interviewing process were clearly explained to each lecturer interviewee. The five English lecturers were first asked for demographic information and about their daily observation of students' English learning beliefs and strategy use in order to compare their perceptions with those of the students. Then they were asked to explain Macao tertiary students' beliefs

about learning English and the strategies the students used to learn English, as well as the relations between these. The questions for the lecturer interviews are displayed in Appendix 12. The interviews were conducted in English because all the lecturer participants had a very good command of English. The interviews were audio recorded with permission of the participants and transcribed under their pseudonyms.

3.7 Data analysis methods

In this research, the quantitative survey data collected through the *English Learning Questionnaire Survey* underwent descriptive analysis, factor analysis and Pearson correlation analysis. The whole quantitative analysis was run by using the SPSS Statistics GradPack (Version 17.0). The qualitative data from the student and lecturer interviews underwent thematic analysis that was done manually. The qualitative data help to explain the survey results, that is, the relations between students' beliefs and strategy use in English learning. In this section, the four main analyses of this research are presented, and to which research questions the four analyses help to address is also summarised in Table 3.1

Table 3.1 Data Analysis Methods that help to address the three research questions	
Research Questions	**Data Analysis Methods**
1. What beliefs about English learning are commonly held by tertiary-level EFL students in Macao?	• Descriptive analysis of responses to the BALLI questionnaire • Thematic analysis of responses to the open-ended question (Item 48).
2. What English learning strategies are commonly used by tertiary-level EFL students in Macao?	• Descriptive analysis of responses to the SILL questionnaire • Thematic analysis of responses to the open-ended questions (Item 98).
3. What are the relations between Macau tertiary-level EFL students' beliefs about the learning of English, and the strategies they use to learn English?	• Two rounds of factor analysis • Two rounds of Pearson correlation analysis based on the two rounds of factor analysis • Thematic analysis for the interview responses

3.7.1 Descriptive analysis

Descriptive Analysis is useful for representing and summarising the collected data to provide a basic description of the data patterns or trends (Kumar, 2005; Lapan & Quartaroli, 2009). In the Descriptive Analysis, the statistics, including frequencies, means, and standard deviations of the participants' responses to the PBI, the BALLI and the SILL items, were analysed and examined on how the effects of the students' background contextual information influenced their beliefs and learning strategies. Although the standard deviations are not referred to during discussion, it is worth presenting because, regardless of the mean, it is recognised that it makes a great deal of difference whether the distribution of the students' response to BALLI and SILL is spread out over a broad range or bunched up closely around the mean. The standard deviation can help point the readers in the right direction when asking why the results

or findings are the way they are. This analysis method helps to answer Research Questions One and Two as indicated in Table 3.1.

3.7.2 Factor analysis

Factor Analysis establishes the common features underlying the relations between the variables in a dataset. It helps to simplify the correlational relations between a number of continuous variables (Actionet al., 2009). The factor analysis in this study functions as the transitional process to the Pearson correlation analysis.

The quantitative data in this study underwent two steps of Factor Analysis—the Principal Component Analysis (Mooi & Sarstedt, 2011; Verma, 2013) with a Scree Plot test (Acton et al., 2009), and the Direct Oblimin Rotation (Acton et al., 2009). These three factor analysis functions have been defaulted in the SPSS software. The Principal Component Analysis helped to determine if there were any factors underlying the relations within Macao students' English learning beliefs and their English learning strategy use while the Scree Plot helped to assure the accuracy of the Principal Component Analysis. The Direct Oblimin Rotation helped to transform the underlying factors of the Principal Component Analysis to a simple structure which could be interpreted more easily (Jackson, 2005). These two steps of Factor Analysis are illustrated in an example below.

First, the Factor Analysis of the BALLI and the SILL items was conducted. After inputting the BALLI and the SILL data, and selecting the Principal Component Analysis and Scree Plot functions, the SPSS software automatically calculated the component factors of the BALLI and SILL items, and determined the number of component factors underlying these items. The loadings on the component factors can be positive or negative, ranging from zero to a maximum absolute value of one (+1 or

-1). The larger the absolute value, the stronger the link between that item and the BALLI component factors or the SILL component factors. A negative loading indicates that the item has an inverse relation with the component factor. The number of component factors could be re-examined by the Scree Plot. For example, the Principal Component Analysis of this study resulted in two pattern matrices, one pattern matrix of beliefs (Appendix 13) and one pattern matrix of strategies (Appendix 14). In the two matrices, four component factors of the BALLI and three component factors of the SILL were concluded in the SPSS respectively. Then the number of the two cohorts of component factors was re-examined by the Scree Plot for accuracy as shown in Appendix 17 and Appendix 18 respectively. The two Scree Plot figures show that the numbers of component factors of the BALLI and the SILL were consistent with the result of the Principal Component Analysis, so that the number of the two cohorts of component factors could be assured in this study.

Second, the component factors of the BALLI and the SILL underwent the Direct Oblimin Rotation. After selecting the function of the Direct Oblimin Rotation in the SPSS, the rotated procedure would run automatically. In the Direct Oblimin Rotation only the items with factor loadings of 0.44 or greater were interpreted (Acton et al., 2009). In this study qualified items of each component factors were presented in the two rotated factor matrices, one of the BALLI variables (Appendix 15) and one of SILL variables (Appendix 16). For example, Items 44, 42, 33, 46, 31, and 30 were loaded to the first composite factor of BALLI and Items 65, 64, 55, 97, 54, 96, 69, 62, 89, 70, 50, 82, 56, 68 and 76 to the first composite factor of SILL. Each composite factor was labelled according to the common characteristic of the associated items. The other composite factors would be selected and labelled in the same way.

However, it was not always easy to find the common characteristics among the items because they were sometimes diversified, resulting in some unrelated items being included within the same composite factor, thus, creating a labelling problem. For example, Factor 1 consists of items which involve students' English learning motivation (Items 44, 42 and 33), aptitude (Item 46), and nature (Items 30 and 31). Because this problem emerged in this study, a second round of Factor Analysis was undertaken on the basis of the original versions of the SILL and the BALLI to verify the relations between the two key variables: language learning beliefs and strategy use.

The second round of Factor Analysis was based on the two original inventories of the BALLI and the SILL. First, the data of the pattern matrix of beliefs and the pattern matrix of strategies from the Principal Component Analysis at the first round would be re-used but they would not undergo the Direct Oblimin Rotation for categorising; instead they would be grouped according to the categories of the SILL and the BALLI inventories as shown in Appendix 17 and Appendix 18. For example, items 14,15, 19, 23, 24, 29, 32, 43 and 46 were selected as the first composite factor for BALLI (OFB1) while Items 49, 50, 51, 52, 53, 54, 55, 56 and 57 were grouped as the first composite factor for SILL (OFS1). The other composite factors for the BALLI and the SILL would be derived in the same way; then the two cohorts of the composite factors would undergo the Pearson Correlation Analysis respectively. Furthermore, the average mean of each group of factor items was calculated as an overall mean. The overall mean was regarded as an indicator to help explain the trend of the quantitative result.

3.7.3 Pearson correlation analysis

After the Factor Analysis, a Pearson Correlation Analysis was employed to determine the relations between the composite factors of the BALLI items and the composite factors of the SILL items. It helped to consider whether there was a real relation between the two sets of composite factors (Cohen et al., 2000; Nardi, 2003). This analysis could test whether the direction of the relation was positive or negative and whether the relation was strong or weak. The function of Pearson Correlation Analysis has been defaulted in SPSS. After selecting this function, the analysing procedure would run automatically. The Pearson correlation analysis in this study helps to answer Research Question Three as displayed in Table 3.1.

In this study, the Pearson Correlation Analysis was conducted on the two cohorts of the composite factors gained from the two rounds of factor analysis as discussed in the previous section. First, the first cohort of composite factors gained from the Direct Oblimin Rotation was correlated as shown in Appendix 19. In the correlation matrix, each column shows the relations between the different belief factors and the corresponding strategy factors. For instance, the first column of the matrix indicates the relations between the first belief factor (FB1) and the three strategy factors (FS1, FS2 and FS3). The first column shows that FB1 has negative relations with FS1 and FS3 respectively, while it has the positive relation with FS2. The correlation results show the strength and weakness of the relations. The same analysis task was conducted on other columns of the matrix, as presented in Chapter Four.

The second cohort of composite factors grouped on the basis of the original inventories of the BALLI and the SILL were correlated as shown in Appendix 20. In the matrix, each column displays the relations between the different belief factors and

the corresponding strategy factors. For instance, the first column of the correlation matrix indicates the relations between the first belief factor (OFB1) and the six strategy factors (OFS1, OFS2, OFS3, OFS4, OFS5 and OFS6). The first column shows that OFB1 has positive relations with all the six strategy factors and the relations are not very strong. The correlational results show the strength and weakness of the relations. The same analyzing task was conducted on other columns of the matrix, as presented in Chapter Four.

After the Pearson correlation analysis for the two cohorts of composite factors, the two groups of relations between students' learning beliefs and strategy use were presented. The common relations gained were adopted and are further discussed in Chapter Four.

3.7.4 Thematic analysis

Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data (Braun & Clarke, 2006). However, the thematic analysis used in this study is only for a limited purpose. It aims to capture any extra types of language learning beliefs and strategy use that appear in responses to the two open-ended questionnaire items, and to report the explanation for the correlational results of beliefs and strategy use. In other words, the thematic analysis adopted in this study would be run deductively (Lapan & Quartaroli, 2009).

In this study, two groups of qualitative data underwent thematic analysis. They were the 346 students' responses to the two open-ended questions of the questionnaire (Appendix 21 and Appendix 22), and the responses of the twelve (12) student interviewees and the five (5) lecturer interviewees.

For the two open-ended questions, the responses underwent a coding procedure in which codes emerged directly from the responses themselves. The purpose of the two open-ended questions was to elicit additional information beyond the information collected in the responses to the multiple-choice items. The multiple-choice items were already categorised according to the headings used in the original inventories. For this reason, the only codes recognised as relevant in the responses to the two open-ended questions were those related to themes which did not repeat information collected through responses to the multiple-choice items. Finally, these themes were refined to align them with the characteristics of the related belief or strategy type.

Similarly, the interview responses also underwent a thematic analysis. The interviews were audio-recorded and the interview data were transcribed. The interview data first underwent a coding procedure where codes emerged directly from the transcripts themselves. These codes were refined in terms of one or more of the three research questions, with particular reference to their potential for revealing information about Macao students' approaches to learning English that lay behind the statistical results. Finally, these themes were also further refined to align them with the characteristics of the related belief or strategy type.

3.8 Summary of the chapter

A mixed method explanatory sequential design is employed in this study, with the follow-up interviews serving to explain the questionnaire results (Onwuegbuzie & Collin, 2007). The whole research design draws on two phases. In Phase One, students' beliefs and strategy use about English learning and the relations between them were identified. In Phase Two, the student and lecturer interviewees explain the commonly held beliefs about learning English and the strategies used to learn English

among the Macao tertiary students, and the established questions to explain further the relations between students' beliefs and strategy use in English learning.

The quantitative data collection was performed in Phase One using the *English Learning Questionnaire Surveys* with a combination of the PBI, the BALLI and the SILL, and statistical analyses including descriptive analysis, factor analysis and Pearson correlations analysis. Then qualitative data collection and thematic analysis took place in Phase Two in relation to the open-ended questions and the interview questions for students and lecturers. The quantitative results and the qualitative findings will be presented in Chapter Four.

Chapter Four

4 Results

4.1 Introduction

Chapter Four presents the results of the data analysis. The quantitative results have come from the analysis of the three questionnaire sections, namely the PBI, the BALLI and the SILL, used to survey the student participants, while the qualitative results have come from the analysis of participant responses to the two open-ended questions in the questionnaire and of data collected from the follow-up interviews with a selection of students and lecturers. This section first presents the results of the PBI and then presents the study results following the sequence of the three research questions.

4.2 Personal background information of tertiary students learning English in Macao

This section first presents the thirteen (13) items that are included in the Personal Background Information (PBI) section of the questionnaire. It then states the purpose for designing the PBI section and finally presents the salient results of the analysis of the responses to the survey.

In the questionnaire survey, the student participants are required to respond to the thirteen (13) items of PBI: (1) gender, (2) age, (3) student type, (4) field of study, (5) years of learning English, (6) self-rating of proficiency, (7) purpose for learning English, (8) effort spent on learning English, (9) the importance of learning English, (10) enjoyment, (11) confidence, (12) whether English is an elective or not, (13) hours of English outside class. The results of the PBI section of the questionnaire help to

provide an overall background against which the beliefs about language learning and the strategy use of Macao tertiary students can be explored.

Demographic data derived from participants' responses to the first three items of the PBI section of the questionnaire, relating to gender, age and student background, were collected to create a student profile, for example, so this study can be compared and contrasted with other studies of ELL beliefs and strategy use. Of the students who participated in the questionnaire survey, 60% are male and 40% are female. They were all local first year university students who had graduated from Chinese medium secondary schools in Macao, as verified in the follow-up interviews. Because all the students were first year students, they were all approximately the same age, as verified by the responses to Item 2.

While the three variables, gender, age and background, may influence the participants' beliefs about language learning and their strategy use when learning English, the two main research focuses of this study, these variables will be described only as background to the study because, firstly, relations between them and language learning beliefs and strategy use are not the focus of the study, and secondly, no significant relations were anticipated as all student participants are the same age and share the same English language learning background.

The responses to the field of the study (Item 4) showed that the student participants were from different schools of MU. The majority of the participants come from the School of Management and Administration (38%), the School of International Tourism (34%), and the School of Humanities and Arts (15%), while a minority of them is from the School of Chinese Medicine (8%), the School of Information Technology (3%) and the School of Information Technology (1%).

The responses to the remaining items in the PBI section of the questionnaire revealed that 74% of the survey participants had learnt English for more than 15 years, 70% of them rated their English proficiency at the 'Not Good' or 'Poor' levels, and 78% of them felt 'Medium' and 'Not Much' confidence in their English learning. Although 87% of the students believed that becoming a proficient English user in Macao was very important, and 60% of them indicated that learning English well would help them to find a good job, 58% of the students admitted that they only spent less than one hour each week learning English after school. Moreover, 74% of them only rated their enjoyment in learning English at the 'Medium' and 'Not Much' levels.

In summary, students' responses to the PBI section of the questionnaire indicate that tertiary EFL students in Macao are experienced English learners and that they want to learn English well because of its increasing social status, locally and globally, as well as its significance for job opportunities in Macao. However, the tertiary students in this study do not show great pleasure, confidence or an industrious attitude when learning English. More seriously, many students confess that they are unsatisfactory or even poor English learners. This insight into the general beliefs held by tertiary students in Macao establishes a background for the discussion of the relations between students' beliefs about language learning and their strategy use when learning English presented in Chapter 5.

4.3 What beliefs about learning English are commonly held by tertiary-level EFL students in Macao?

The analysis of Macao tertiary students' responses to the BALLI questionnaire indicates that most students share a limited set of similar beliefs about learning English. The analysis of all the responses to the BALLI items is presented in

Appendix 23, while this section reports only on those items deemed salient or common with high percentage points, that is, items where more than 75% of the students responding agree or strongly agree, as shown in Table 4.1. Table 4.1 shows that Macao students hold four types of beliefs about language learning, namely, beliefs about (1) foreign language aptitude, (2) the nature of language learning, (3) learning and communication and (4) motivation. Within each category, however, the beliefs held by students tend to fall within a limited range.

Responses to items related to beliefs about foreign language aptitude showed that many students believed that age is a factor in learning a foreign language. As displayed in Table 4.1, 92% of the students accepted (agreed or strongly agreed with) the statement that it is easier for children to learn a foreign language than an adult. Another belief in this category is that foreign language learning requires certain aptitudes or abilities; 81% of the students responded positively to the statement (agreed or strongly agreed) that some people have special abilities for learning foreign languages.

Responses to items related to the nature of language learning showed that students were most concerned about their language context and about content. As presented in Table 4.1, 78% of the students believed (agreed or strongly agreed) that it is best to learn English in an English-speaking country while 81 % of them supported (agreed or strongly agreed) that vocabulary learning is the most important aspect of learning English.

Responses to items related to learning and communication showed that students tend to hold beliefs associated with methods for and priorities in learning a foreign language. As shown in Table 4.1, the student participants valued repetition and

practice, with 93% of them agreeing or strongly agreeing with the statement that repetition and practice are important strategies for learning English. The majority of students also prioritise pronunciation in speaking English, with 81% of the students identifying excellent pronunciation as the most important goal of English learning.

In their responses to items related to motivation and expectations, Macao students reported that English is a useful tool for finding a good job (Table 4.1). Around 85% of the students reported that they wanted to speak English well while 87% of them recognised the value of English for increasing job opportunities in Macao. This implies that a majority of students in Macao are motivated to learn English well to find a good job, which is what they expect after learning English well.

In addition, Table 4.1 shows some less salient beliefs about learning English held by Macao students. For the category of foreign language aptitude, for example, less than 17% of the students supported (agreed or strongly agreed with) the statement that Macao people are good at learning foreign languages and no more than 15% of them believed (agreed or strongly agreed) that they themselves had a special ability for learning foreign languages. Of the responses to items related to the difficulty of language learning, only around 17% of the students thought (agreed or strongly agreed) that English is an easy language while nearly 15% of the students reported that they should not say something in English until they could say it correctly. These less prevalent beliefs imply that Macao students are not confident in using English even though they understand that errors are tolerated in spoken English. This aligns with what was reported from the analysis of responses to the PBI questionnaire in Section 4.2.

Table 4.1

Percentage of Responses, Means and Standard Deviations for salient BALLI items

Types of beliefs		No	Items	1	2	3	4	5	M	SD
Foreign Language Aptitude	Common	14	It is easier for children than adults to learn a foreign language.	56	36	6	2	1	1.55	0.75
		15	Some people have a special ability for learning foreign languages.	36	45	15	4	0	1.87	0.83
	Less common	19	People in Macao are good at learning foreign languages.	4	13	55	24	5	3.14	0.82
		29	I have a special ability for learning foreign languages.	6	9	40	29	17	3.43	1.04
The Nature of Language Learning	Common	25	It is best to learn English in an English-speaking country	43	36	15	6	1	1.87	0.95
		30	The most important part of learning a foreign language is learning vocabulary words.	37	44	15	4	0	1.86	0.82
Learning and Communication	Common	20	It is important to speak English with an excellent pronunciation.	37	44	14	5	1	1.90	0.89
		31	It is important to repeat and practise a lot.	57	36	6	1	1	1.53	0.72
	Less common	22	You shouldn't say anything in English until you can say it correctly.	5	10	24	36	24	3.63	1.11
The difficulty of language learning	Less common	17	English is: (1= very easy, 5=very difficult)	2	15	49	25	10	3.25	0.90
Motivation and expectations	Common	42	If I learn English very well, I will have better opportunities for a good job.	59	28	10	3	0	1.58	0.80
		44	I want to learn to speak English well.	57	28	12	2	1	1.62	0.85

1=strongly agree, 2=agree, 3=agree or disagree, 4=disagree, 5=strong disagree, M=mean, SD=standard deviation

Furthermore, the analysis of the responses to the open-ended question appended to the end of the BALLI section of the questionnaire (Item 48) show very similar beliefs about learning English to those found in responses to the BALLI items. The answers to the open-ended questions have been summarised into the categories of beliefs (see Appendix 21), and the extra beliefs suggested by the students are very similar to the BALLI items. In other words, results confirm the robustness of the original framework of the BALLI.

In summary, in answer to the first research question, the analysis of the responses to the BALLI section of the questionnaire shows that Macao tertiary students believe that there is an optimum age for learning an additional language, that aptitude for learning a language is innate, and that successful language learning depends on repetitive practice, working towards pronunciation accuracy and vocabulary building. These beliefs, commonly held by tertiary students studying English in Macao will be further discussed in Chapter 5.

4.4 What English learning *strategies* are commonly used by tertiary-level EFL students in Macao?

The analysis of Macao tertiary students' responses to the SILL section of the questionnaire shows that while tertiary students in Macao employ a wide range of different types of English language learning strategies, including memory strategies, cognitive strategies, metacognitive strategies, compensation strategies, affective strategies, and social strategies, their selection of learning strategies from within each category is very narrow. Moreover, the frequency of their overall strategy use is not very high, and the mean for English learning strategy use was close to the median level

(M=2.95), which means that overall the students only employ strategies for learning English occasionally.

In reporting students' strategy use, any strategies with more than twice the number of supportive responses than unsupportive responses, or vice versa, will be considered as relatively salient for the purposes of this study. The analysis of responses to items that revealed the most salient of the strategies used by the students is shown in Table 4.2. The complete SILL results are presented in Appendix 24.

As in shown in Table 4.2, in terms of the Memory Strategies category, Macao tertiary students tend to memorise English words based on rhymes, rather than drawing on other learning tools such as flashcards. In addition, the students are unlikely to memorise new words through revision. As displayed in Table 4.2, analysis of the SILL responses indicate that around 48% of the students always or usually use rhymes to remember new English words while only 17% of them reported that they often use flashcards to remember new words. In addition, less than 15% of the students responded that they always or usually review their English lessons. These results illustrate the narrowness of students' choices from the Memory Strategies category.

In terms of the Cognitive strategies category more than one third of the students report frequent use of different cognitive strategies, with the use of audio-visual media their top priority when learning English. As shown in Table 4.2, about 43% of the students often learn English by watching English television programmes and movies, in order to practise learning how English speakers use English; but at the same time the analysis indicates that less than 16% of the students frequently write in English, start conversations in English or read for pleasure in English.

Table 4.2

Percentage of Responses, Means and Standard Deviations for Salient SILL Items

Types of Strategies		No	Item	1	2	3	4	5	M	SD
Memory Strategies	Common	53	I use rhymes to remember new English words.	12	36	30	18	5	2.69	1.05
	Less common	54	I use flashcards to remember new English words.	4	13	25	32	26	3.62	1.12
		56	I review English lessons often.	4	11	40	36	9	3.36	0.93
Cognitive Strategies	Common	63	I watch English language TV shows spoken in English or go to movies spoken in English.	15	28	40	13	4	2.64	1.03
	Less common	62	I start conversations in English.	5	15	39	29	12	3.27	1.02
		64	I read for pleasure in English.	6	10	24	41	19	3.55	1.09
		65	I write notes, letters, or reports in English.	5	10	28	38	20	3.58	1.05
Compensation Strategies	Common	72	To understand unfamiliar English words, I make guesses.	17	38	35	9	1	2.41	0.92
		73	When I can't think of a word during a conversation in English, I use gestures.	21	30	32	13	4	2.49	1.08
		74	I make up new words if I do not know the right ones in English (e.g. air ball—balloon).	19	25	32	17	7	2.76	2.00
		77	If I can't think of an English word, I use a word or phrase that means the same thing.	16	36	33	12	3	2.50	1.00
Metacognitive Strategies	Common	78	I try to find as many ways as I can to use my English.	14	26	42	16	3	2.70	0.98
		80	I pay attention when someone is speaking English.	15	38	36	10	2	2.47	0.92
		81	I try to find out how to be a better learner of English.	13	35	38	11	3	2.56	0.94
	Less common	82	I plan my schedule so I will have enough time to study English.	9	12	32	36	12	3.30	1.10
		84	I look for opportunities to read as much as possible in English.	6	15	39	32	9	3.22	1

1=always or almost true of me 2=usually true of me 3=somewhat true of me 4=usually not true of me 5=never or almost never true of me

Furthermore, the analysis shows that the students' use of cognitive strategies is more common when listening to English but less common when writing, speaking and reading English, although their choices within this category remain very narrow.

Strategies in the compensation strategies category are relatively widely used and prevalent among Macao tertiary students learning English. More than 50% of the students often employ guesses when coming across unfamiliar words or use gestures when expressing difficult words. Around 44% of the students often make up new words if they do not know the right ones in English, and about 50% of them often use another word or phrase with a similar meaning if they cannot think of the exact English word. Thus, as indicated in Table 4.2, Macao tertiary students use a wide range of compensation strategies to learn and use English.

Students report using a variety of strategies from the metacognitive strategies category (see Table 4.2), but the strategies are employed in a rather passive way. For instance, 40% of the students report that they often try to find as many ways as possible to use English, while over 50% of the students pay attention when someone is speaking English. In addition, nearly 48% of them claim that they often try to find out how to be better English learners; however, only about 21% of the students report that they often plan a timeline for English study or look for opportunities to do as much English reading as possible.

While students report they use strategies from the affective and social strategies categories, the frequency of use is not high. Furthermore, the ratios of supportive to unsupportive responses for items within these two categories are not saliently different, except in the case of one item in the affective strategy category, "I try to relax whenever I feel afraid of using English", and one Social strategy, "If I do not

understand something in English, I ask the other person to slow down or say it again". The analysis of the responses to these items indicate that more than 42% of the students report that they often try to relax when they feel anxious while using English and more than 50% report that they will ask the other person to slow down or repeat when they do not understand. This shows that Macao tertiary students tend to solve their affective problems by themselves instead of sharing their anxiety with others; however, they are still likely to ask for help from others if they do not understand something in English.

Student responses to the open-ended question appended to the SILL section of the questionnaire (item 98) report the use of strategies that overlap with those covered by the SILL items. All responses to the open-ended question were analysed into categories (see Appendix 22), and the additional strategies suggested by the students are very similar to the SILL items. In other words, this study confirms the original SILL framework.

In summary, in relation to the second research question, the analysis of the responses to the SILL section of the questionnaire shows that Macao tertiary students tend to employ English learning strategies occasionally. Comparatively, they tend to adopt more strategies from the memory, cognitive and compensation strategies categories. While students use a wider selection of compensation strategies, their choice of strategies from each category tends to be narrow. For example, of the memory strategies, students favour the use of English rhymes, of the cognitive strategies , they prefer audio visual media, and of the social strategies, students tend to focus on speaking and listening skills. These preferences are supported by the students' responses to the open-ended question appended to the SILL section of the

questionnaire. However, the way students reported their use of cognitive and metacognitive strategies indicates they do not practise writing and reading English sufficiently. These commonly used strategies reported in the survey will be further discussed in Chapter 5.

4.5 What are the relations between tertiary-level EFL students' *beliefs* about the learning of English and the *strategies* they use to learn English?

This section presents the results of the correlation between Macao tertiary students' beliefs about language learning and the strategies they use to learn English. The two rounds of factor analysis are reported, followed by explanations derived from the interviews with selected students and lecturers. As will be shown, this correlation is from weak to modest only. The interview participants agree that Macao tertiary students' beliefs about the learning of English and the strategies they use to learn English have a reciprocal relation and the learning strategies are usually used subconsciously.

4.5.1 The results of the factor analysis of the responses to the BALLI items

Following the factor analysis of the responses to the BALLI items, four factors were generated, as presented in Tables 4.3 to 4.6 (See also Appendix 15). Each factor has been labelled by the researcher according to the characteristics of most of the items in the clusters. The four factors of the BALLI items have been labelled as follows:

- Beliefs about motivation and capacity to learn English
- Beliefs about self-confidence in learning English

- Beliefs formed early(i.e. preconceived beliefs) about language learning
- Beliefs about aptitude and the context for language learning.

The *beliefs about motivation and capacity to learn English* factor, Factor 1, is presented in Table 4.3. Factor 1 covers students' English learning motivation (Items 44, 42 and 33), students' learning aptitude and capacity to learn English (Item 46), and the nature of English learning (Items 30 and 31). The loadings range from .521 to .715 and they are all positive, indicating that all the belief items are positively associated with Factor 1. This positive association suggests that this is a cluster of beliefs commonly held by students in Macao.

	Table 4.3 **Factor 1—Beliefs about motivation and capacity to learn English**	
No	**Items**	**Loadings**
44	I want to learn to speak English well.	.715
42	If I learn English very well, I will have better opportunities for a good job.	.657
33	People in Macao feel that it is important to speak English.	.632
46	Everyone can learn to speak a foreign language.	.525
31	It is important to repeat and practice a lot.	.522
30	The most important part of learning a foreign language is learning vocabulary words.	.521

The *beliefs about self-confidence in English learning* factor, Factor 2, is presented in Table 4.4. Factor 2 is made up of items concerning students' self-confidence in learning English, including their language ability (Items 18, 29, 17 and 26). The loadings in Table 4.6 range from .553 to .639 and they are all negative, which means that all the belief items are negatively associated with Factor 2. This negative association suggests that this is a cluster of beliefs not commonly held by students in Macao.

	Table 4.4 Factor 2—Beliefs about self-confidence in English learning	
No	**Items**	**Loadings**
18	I believe that I will learn English well.	-.639
29	I have a special ability for learning foreign languages.	-.582
17	English is ____. (Choice 1=very easy, Choice 5=very difficult).	-.581
26	I enjoy practising English with the English-speakers I meet.	-.553

The *preconceived beliefs about language learning* factor, Factor 3, is shown in Table 4.5. It is concerned with students' preconceived beliefs, formed early, in English learning, including beliefs about their learning aptitude (Items 43 and 24), the effectiveness of their English communication (Item 22) and the most important aspect of learning English (Item 41). The loadings in Table 4.7 range from .492 to .553 and they are all positive. So all the belief items in this table are positively associated with Factor 3. This positive association suggests that this is a cluster of beliefs commonly held by students in Macao.

	Table 4.5 Factor 3—Preconceived beliefs about language learning	
No	**Items**	**Loadings**
43	People who speak more than one language are very intelligent.	.553
22	You shouldn't say anything in English until you can say it correctly.	.536
41	The most important part of learning English is learning how to translate from my native language.	.503
24	People who are good at mathematics or science are not good at learning foreign languages.	.492

The *beliefs about aptitude and the context for language learning* factor, Factor 4 (Table 4.6), centres on the language aptitude of certain groups of people, specifically

children in Item 14 and women in Item 32. It also involves the context of learning English such as Item 25. The loadings range from .473 to .577 and they are all positive, which indicates that the belief items in this table are positively associated with Factor 4. This positive association suggests that this is a cluster of beliefs commonly held by students in Macao.

	Table 4.6 **Factor 4—Beliefs about aptitude and the context for language learning.**	
No	**Items**	**Loadings**
14	It is easier for children than adults to learn a foreign language.	.577
32	Women are better than men at learning foreign languages.	.518
25	It is best to learn English in an English-speaking country.	.473

What is striking about the results presented in these four tables is that none of the factors is 'pure', in the sense that they all cover very different kinds of beliefs. Hence these factors are composite, which makes it difficult to state in explicit terms how the beliefs are correlated with strategy use. This is the reason for the second round of correlation analysis and will be discussed in detail below.

4.5.2 The results of the factor analysis of the responses to the SILL items

Following the factor analysis of the responses to the SILL items, three factors were generated, as presented in Tables 4.7 to 4.9 (See also Appendix 16). Each factor has been labelled by the researcher according to the characteristics of most of the items in the clusters. As with the factor analysis of the responses to the BALLI items, it has proved very difficult to label each factor because the features of the items in each group are so varied, thus the three factors are also composite ones. Nevertheless, to

reflect most of the items in each cluster, the three factors have been labelled as follows:

- Cognitive strategies and memory strategies for learning vocabulary
- Compensation strategies
- Metacognitive strategies and affective strategies

Table 4.7

Factor 1—Cognitive strategies and memory strategies for learning vocabulary

No	Items	Loadings
65	I write notes, letters, or reports in English.	.807
64	I read for pleasure in English.	.798
55	I categorise new English words and remember them.	.745
97	I try to learn about English culture.	.700
54	I use flashcards to remember new English words.	.675
96	I ask questions in English.	.611
69	I find the meaning of an English word by dividing it into parts that I understand.	.551
62	I start conversations in English.	.533
89	I give myself a reward or treat when I do well in English.	.481
70	I try not to translate word-for-word.	.481
50	I use new English words in a sentence so I can remember them.	.474
82	I plan my schedule so I will have enough time to study English.	.448
56	I review English lessons often.	.447
68	I try to find sentence patterns in English.	.443
76	I try to guess what the other person will say next in English.	.443

The *cognitive strategies and memory strategies for learning vocabulary* factor, Factor 1, is presented in Table 4.7. Factor 1 is made up of items related to language practice in the four language skills (Items 65, 64, 68, 96, 76 and 62), vocabulary learning (Items 69, 50, 54, 55, and 70), and the learning of other language features (Items 56, 82, 89 and 97). The loadings in Table 4.9 range from .443 to .807 and they are all positive, showing that the items in the table are positively associated with Factor 1.

The positive association suggests that this is a cluster of strategies used by students in Macao, at least occasionally.

The *compensation strategies* factor, Factor 2, is presented in Table 4.8. Compensation strategies enable learners to use the new language despite limitations in knowledge especially when coming across new words in conversation (Items 72, 73, 74 and 77). The loadings in Table 4.10 range from .472 to .675 and they are all positive, which means that all the strategy items in the table are associated with Factor 2. The positive association suggests that this is a cluster of strategies used by students in Macao.

Table 4.8
Factor 2—Compensation strategies

No	Items	Loadings
77	If I can't think of an English word, I use a word or phrase that means the same thing.	.675
74	I make up new words if I do not know the right ones in English, e.g. air ball—balloon.	.559
72	To understand unfamiliar English words, I make guesses.	.538
73	When I can't think of a word during a conversation in English, I use gestures.	.472

The *metacognitive and affective strategies* factor, Factor 3, is presented in Table 4.9. Metacognitive and affective strategies include students' self-regulatory study (Items 86, 85, and 82), effective tactics for learning a language (Items 79, 80, 81, 84), and affective management (Items 87 and 88). The loadings in Table 4.13 range from .572 to .730 and they are all negative, which shows their negative association with Factor 3. The negative association suggests that this is a cluster of strategies not commonly used by students in Macao.

Table 4.9 Factor 3—Metacognitive and affective strategies		
No	**Item**	**Loadings**
86	I think about my progress in learning English.	-.730
81	I try to find out how to be a better learner of English.	-.727
80	I pay attention when someone is speaking English.	-.611
85	I have clear goals for improving my English skills.	-.572
79	I notice my English mistakes and use that information to help me do better.	-.502
84	I look for opportunities to read as much as possible in English.	-.496
88	I encourage myself to speak English even when I am afraid of making a mistake.	-.479
82	I plan my schedule so I will have enough time to study English.	-.472
87	I try to relax whenever I feel afraid of using English.	-.460

Again, what is striking about the results presented in these three tables is that none of the factors is 'pure', with perhaps the exception of Factor 2, in the sense that, they cover very different kinds of strategies. Hence, these factors too are composite, which makes it difficult to state in explicit terms how the different kinds of strategy use are correlated with beliefs about language learning. This further supports the need for a second round of correlation analysis, as will be discussed in the next section.

4.5.3 The result of the Pearson Correlation Analysis based on the factor analysis (Round 1)

The first round of the Pearson Correlation Analysis is based on the results of the factor analysis, which generated clusters of factors labelled by the researcher, as summarised in Table 4.10. As shown in Table 4.10, the correlation between the beliefs and strategies is weak to modest.

Although Table 4.10 presents a general picture of the relations between student learning beliefs and strategies, the correlation figures are unable to reflect a clear-cut

meaning due to the composite nature of the factors themselves .In other words, it is difficult to say anything definitive about their relationship. For instance, a negative correlation (-.463) exists between FB2 and FS1 in Table 4.10, which means if students have higher self-confidence in English learning, they will employ fewer cognitive and vocabulary-related memory strategies. This, however, does not make clear whether higher self-confidence in English learning correlates with cognitive strategies or with vocabulary-related memory strategies. This indeterminate correlation may cause confusion as to whether the students prefer using fewer cognitive strategies, vocabulary strategies or memory strategies when they are confident about learning English.

Table 4.10
Pearson Correlation between Beliefs and Strategy Use

	FB1 Beliefs about motivation and capacity to learn English	**FB2** Beliefs about self-confidence in English learning	**FB3** Preconceived beliefs about language learning	**FB4** Beliefs about aptitude and the context for language learning
FS1 Cognitive strategies and memory strategies for learning vocabulary	-.090	-.463**	.222**	.008
FS2 Compensation Strategies	.239**	-.349**	.069	.151*
FS3 Metacognitive strategies and affective strategies	-.213**	.433**	-.189**	.035

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed).

This confusing correlational issue emerges in similar studies and the grouping problem has also been confronted by other researchers (Fujiwara, 2011; Park, 1995; Suwanarak, 2013; Yang, 1992). To resolve this issue, and the possible inaccuracy of the correlation analysis, a second round of correlation analysis was carried out in this study. In addition, the Pearson's value ranging from .008 to .463 in Table 4.10 reflects very weak to moderate correlations between belief and strategy factors which might be attributable to individual items being loaded to more than one factor, for example items loaded to FB3 and FB4. For these two reasons, a second round of correlation analysis based on the categories of the original inventories was chosen.

4.5.4 The results of the Pearson correlation analysis based on the original inventory categories (Round 2)

To obtain a clearer correlation between the beliefs about language learning held by Macao tertiary students and their language learning strategy use, a second round of correlation analysis was carried out. The second round of Pearson Correlation Analysis is based on the original categories in the BALLI and the SILL frameworks (see Appendix 25 and Appendix 26). The correlation results are summarised in Table 4.11.

Table 4.11 shows fairly weak to modest but positive correlations between the students' beliefs about language learning and the language learning strategies they use. This is a more accurate correlation between each individual belief and strategy when compared with the correlational results in the first round shown in Table 4.10 above.

Generally, the Round 2 correlation shows that students with beliefs about aptitude for learning a foreign language (OFB1) and the difficulty of learning English (OFB2) tend

to use all six types of learning strategies, including social strategies, a correlation not found in the results of the first round of the correlation analysis. Apart from the positive moderate correlation between the beliefs about motivation (OFB5) and the metacognitive strategies (OFS4), the two categories of belief about learning and communication strategies (OFB4) and beliefs about motivation (OFB5) in Table 4.11 have very weak correlations with all the learning strategies.

Table 4.11
Pearson Correlation between Original Categories of Beliefs and Strategy Use

	OFB1 Beliefs about foreign language aptitude	**OFB2** Beliefs about the difficulty of language learning	**OFB3** Beliefs about the nature of language learning	**OFB4** Beliefs about learning and communication strategies	**OFB5** Beliefs about motivation
OFS1 Memory strategies	.208	.271	.115	.087	.126
OFS2 Cognitive strategies	.253	.334	.125	.130	.181
OFS3 Compensation strategies	.196	.230	.144	.160	.176
OFS4 Metacognitive strategies	.246	.384	.201	.154	.260
OFS5 Affective strategies	.245	.242	.057	.103	.080
OFS6 Social strategies	.197	.261	.075	.108	.167

Comparatively, students with beliefs clustered in OFB2 seem to be more strategic in their learning of English. Two salient positive correlations of this group are shown in Table 4.11. They are the correlation between OFB2 and OFS2 (r=.334), and the

correlation between OFB2 and OFS4 (r=.384). From these two correlations, we understand that Macao tertiary students who believe that learning an additional language is difficult tend to employ more cognitive and metacognitive strategies. Students with beliefs clustered in OFB2 are generally the less confident and less motivated students, but they want to improve their English proficiency and they use more cognitive strategies as these may be more familiar to them.

On the other hand, tertiary students in Macao who believe learning an additional language is difficult tend to use metacognitive strategies. According to the analysis of the responses to the PBI section of the questionnaire, Macao tertiary students in general think that learning English is not easy but they believe that they could learn English well within one to five years, which shows Macao students are confident they can overcome the difficulty of learning English in the long term even though they are not confident in communicating in English at present. Hence, they use metacognitive strategies, such as paying attention when someone is speaking English or trying to use English in different ways (see Table 4.2), although these were not used very frequently. This point will be further discussed in Chapter 5.

In addition, two salient relations can also be found between the use of affective strategies and the cluster of beliefs in OFB1 (r=.245) and in OFB2 (r=.242) because students need the affective strategies to give themselves encouragement. These students include those who believe strongly in the 'golden age' for learning language during childhood and that an aptitude for learning a language well is innate, characteristics they cannot benefit from (see Table 4.1), and those who believe in the importance of vocabulary learning and the learning context, characteristics they cannot make better use of (see Table 4.1). These students are somehow more anxious and

depressed during their language learning and so they tend to use more affective strategies. Moreover, students 'long-term' self-confidence in learning English further explains the correlations between the use of social strategies and the beliefs in OFB1 (r=.197) as well as OFB2 (r=.261), which shows that Macao tertiary students are likely to learn from friends and classmates to compensate for their current English inadequacy. In other words, students who are anxious about learning English or those who have 'long-term' confidence that they will learn English well eventually are likely to employ affective strategies and social strategies, as will be discussed further in Chapter 5.

Table 4.11 also shows that OFB2 is correlated with OFS3 (r=.230), which means that students who believe that language learning is difficult are likely to use compensation strategies. This correlation result aligns with that of the analysis (Item47) showing that Macao students believe that English speaking is more difficult than other English skills such as reading and writing (Item 47). Hence they are likely to apply compensation strategies such as guesses, gestures, and making up new words when they speak English in order to overcome knowledge gaps during the conversation. This result also aligns with that of Table 4.10, indicating the use of compensation strategies is common to motivated tertiary students in Macao who want to speak English well even though they believe that speaking English is very difficult.

In addition, some very weak correlations are found between OFB3 and OFB4, and the six learning strategies, such as the correlations between OFB3 and OFS5 (r=.057), OFB3 and OFS6 (r=.075), OFB4 and OFS1 (r=.087) and OFB5 and OFS5 (r=.080). The first two overwhelmingly weak correlations indicate the much less frequent use of affective strategies and social strategies among students who have beliefs relating to the nature of language learning. The third very weak correlation result between

memory strategies and beliefs in the value of learning and communication in language learning shows clearly that students who favour authentic communication do not favour memory strategies.

The fourth very weak correlation result shows that students with motivating beliefs use many fewer affective strategies because this group of students are confident in learning English. They show sufficient positive attitude in learning English and so affective strategies might not be so necessary for them.

Although students with motivating beliefs (OFB5) are less strategic, they seem to employ more metacognitive strategies (r=.26). It is reasonable to assume motivated students will employ metacognitive strategies but this correlation result in Table 4.13 does not align with that in Table 4.10 generated in the first round of correlation analysis. This might be attributed to the definitions of learning motivation represented in these two tables. In Table 4.11, the beliefs about motivation factor (OFB5) refers to a general motivational belief while in Table 4.10 the beliefs about the motivation and capacity to learn English factor (FB1) does not refer to learning motivation only but also covers other features of language learning. In other words, the motivation cluster in Table 4.10 is not pure. Thus, the result in Table 4.11 would be more reliable, as will be discussed in Chapter 5.

In this sub-section, the Factor Analysis and the two rounds of the Pearson Correlation Analysis of the responses to the questionnaire survey help to establish the relations between Macao tertiary students' learning beliefs and strategy use, and, thus, to contribute to an answer to the third research question addressed by this study:

> What are the relations between Macao tertiary-level EFL students' *beliefs* about the learning of English, and the *strategies* they use to learn English?

The first round of correlation results based on the Factor Analysis in this study does not provide a clear picture of the relation between Macao tertiary students' learning beliefs and their strategy use. The second round of the correlation results, based on the original categories of the two inventories, presents a more meaningful and clearer picture of Macao tertiary students' language learning because items associated with each label relate to corresponding belief or strategy types. The results of the two rounds of the Pearson Correlation Analysis in relation to the third research question addressed by this study can be summarised as follows:

1. Macao tertiary students who believe that learning an additional language is difficult tend to employ more cognitive and metacognitive strategies.

2. Macao tertiary students who believe that learning an additional language is difficult are likely to use compensation strategies.

3. Affective strategies and social strategies are used less frequently by Macao tertiary students who have beliefs in relation to the nature of learning an additional language.

4. Macao tertiary students who have 'long-term' confidence that they will learn English are likely to use affective strategies and social strategies.

5. Macao tertiary students who believe in the effectiveness of learning and communication strategies are unlikely to use memory strategies.

6. Motivated students use fewer affective strategies.

7. Motivated students tend to use metacognitive strategies.

The abovementioned correlation results between Macao tertiary students' beliefs about learning an additional language and the strategies they use to learn English will be further explained in the next sub-section by drawing on the student and lecturer responses during interviews. The responses of the students and lecturers to these questions were used to explain the relations between language learning beliefs and language learning strategies derived from the quantitative phase of the study.

4.5.5 What do students and lecturers say about Macao tertiary students' beliefs about learning English and the strategies they use to learn English, and the relations between these?

This sub-section presents the students' and the lecturers' opinions of Macao tertiary students' beliefs about learning English, the strategies they use to learn English and the relations between these beliefs and strategies. The results are reported in accordance with the research questions of this study.

4.5.5.1 Research Question 1: What beliefs about English learning are commonly held by tertiary-level EFL students in Macao?

In this section, the students and the lecturers explain a lot of their points of view in regard to the common beliefs which are held by tertiary-level EFL students in Macao.

Many Macao tertiary students mentioned that learning age is very critical for learning English well. English learning should be encouraged as early as in childhood because that was the 'golden age' for English learning and it was the best period to adapt new knowledge.

Jason: *我觉得小孩子接受和学习新事物要容易得多。大学生虽然比较成熟，但我发现许多同学学习英语非常努力，但还是学不太好，口语不流利。[I think it is much easier for children to accept and learn new things. University students are mature and I found a lot of my classmate who studied English very hard but still could not speak very fluently and learned very well.]*

Reece: *学习语言还是要从娃娃抓起，因为他们适应新事物和知识的能力更强。[Language learning should start at childhood because they are more adaptive to the new things and knowledge.]*

The tertiary students also related successful English learning to the language ability. They agreed that some people had special abilities for learning foreign languages, but most of them do not believe that they were born with it.

Maybo: *我发现有些同学英语比别人说得好。所以我相信有些人的确在学习语言方面有特殊能力，而我却没有。[I found some of my classmates can speak English better than the others. So I believe some people have special ability in learning language, excluding me.]*

Many of the tertiary students believed that learning more new words was the most important part in learning English because a wide range of English vocabulary helps them make more sentences for expressing themselves. They also thought that vocabulary learning was very common in high school and so they felt familiar with it.

Jason: *如果没有词汇的话，造句就会变得很困难。就好像我的词汇量很小，所以我用英语表达就很困难。[Without the vocabulary words, it*

would be very difficult to make sentences. For example, my vocabulary range is very small and it is very difficult to express myself in English.〕

Vicki: *我们老师总是会给我们单词表， 所以我们以为这是学习词汇的方法，特别是在高中的时候。我认为学习词汇很重要。*〔*Our teacher always gave us the vocabulary lists which make us think that this was the way to study vocabulary, especially in high school. I think learning vocabulary is very important.*〕

Some students explained that language context is very important. In Macao, they can only practice English in classroom where there is not an authentic English language environment.

Hou: *实践很重要。但这只局限于英语课堂上，实际生活中没有...很少有机会练习和使用英语。*〔*Practice plays an important role. However, it is only limited in the English classroom but not in the real life…very little chance to practise and use English.*〕

Reece: *我讲英语没有自信，因为之前缺乏英语练习。可能澳门也没有练习英语的环境。*〔*I am not confident in speaking English because of the shortage of English practice before. Probably we don't have the English environment in Macao.*〕

The students also think that English practice should be repeated, or it will be forgotten very fast.

Jason: *不断地练习和重复我们所学的四项英语技能很重要。但我认为在澳门，我们的英语学习只是为了各种考试和测验。考完后我就什么都忘了，因为我们平时很少用英语。*〔*It is important to practice and*

repeat what we have learnt on the four English skills. I think in Macao, our English learning are only for preparing the tests and exams. I forgot everything after the exams because we seldom use English in our daily life.〕

The students explained that excellent pronunciation is also important in a conversation because it helps the people to understand you well. And they also thought that people who speak English with wrong pronunciation looks silly.

Jason: *英语发音标准很重要，这样别人就更能理解你在说什么。*〔*It is important to speak English with excellent pronunciation so that the others can understand you better.*〕

Gary: *发音标准的确很重要。但我很怕说错会很没面子，让人笑话。*〔*Excellent pronunciation is important. I am afraid of being laughed if I make some mistakes and lose face.*〕

In regard to the beliefs about English learning, the tertiary students felt that they wanted to learn English well. And their learning motivation was very goal-driven including English communication, job opportunity and preparation for tests and exams.

Maybo: *我想把英语说好不是因为我真的有兴趣，而是未来可以有更好的前景。我相信说好英文可以助我找到一份好工作。*〔*I want to learn to speak English well not because of my interest but only for a brighter career future. I believe that speaking English well helps to find a good job.*〕

KingKong: *英语说得好很重要，特别是在工作场合如赌场，酒店和一些大公司里。[English speaking is important especially in the workplace like casinos, hotels and some big companies.]*

Werner: *For a lot of Macao students, English is a subject for them to study especially for exams. They have no interest in learning those which will not be marked or tested. They concern very much with their final grades but not how much English they have learnt.*

Bessie: *…… students think that they will only be considered if they can speak good English in the job interviews. And after entering the company, they might have to communicate with the managers in English as well.*

However, some students also expressed their personal interest in learning English. They were motivated by their learning background such as their family and the learning environment.

Jason: *我从小就开始学英语。父母给了我很多鼓励。我从他们和学校那里都学到了很多英语知识。我只想再多学点听说方面的技能。[I started learning English when I was very young. My parents gave me a lot of encouragement. When I know more about English from them and from the schools, I just want to learn more about it especially the speaking and listening skills.]*

Vicki: *除了工作需要外，我对学习英语口语也很感兴趣。英语让我变得自信，让我感到骄傲，它变得越来越重要。所以我想把英语口语学好。[Besides the job issue, I am also very interested in learning speaking English. I think English can make me confident and I will be very*

proud of myself…and it becomes increasingly important. So I want to learn to speak English well.〕

In this section, the students and lecturers shared a lot of beliefs about language learning that the tertiary students in Macao commonly have, and explained why they held those beliefs. In the next section, they will explain more about tertiary students' English learning strategies.

4.5.5.2 Research Question 2: What strategies about English learning are commonly used by tertiary-level EFL students in Macao?

In this section, the students and the lecturers explain a lot of their points of view in regard to the common strategies which are used by tertiary-level EFL students in Macao. The students shared a lot of their experience in the use of memory strategies, cognitive strategies, compensation strategies, and social strategies but very few metacognitive strategies and affective strategies.

For the use of memory strategies, the students explained that their memory strategies were mainly employed on vocabulary spellings and meanings.

Jason: *学习词汇的话我喜欢把新的单词分类...根据音节和有意义的词缀把生词归类。这个方法是我之前的英语老师教我的。*〔*For the vocabulary learning, I prefer categorizing the new words…dividing the word into parts in terms of the syllables and the meaningful affix. My previous English teachers recommended these strategies to me.*〕

Ray: *我发现把发音和意思相近的词归类非常容易记忆。*〔*I found grouping the similar words together in terms of the sounds and meanings is very easy for me to remember.*〕

The lecturer agreed with the students and added that students' limited use of memory strategies is attributed to traditional English teaching, which makes students ignore the importance of pronunciation practice.

Sarah: *Many students think that vocabulary is the most important part in English learning. When they revised for the tests, they mainly focused on the spelling and meanings but ignore the English pronunciation.*

Werner *Many Macao students prefer using memory strategies. I think they were influenced by the grammar-based teaching in high school. Local students are more passive in English earning. They are not strategic probably because they know very little about learning strategies.*

Macao tertiary students tend to explain their experience of rote-learning when talking about the memory strategies, which implies that there is a misconception between memory strategies and rote learning among the tertiary students. Many of the Macao tertiary students thought that rote learning is a kind of memory strategy, but they hate using it. They explained that in the examination-oriented classroom, they had to be spoon-fed a lot of grammar rules as well as the meanings of new words, which made them lose learning interest.

Reece: *我不喜欢像高中时那种被填鸭式地灌输英语句子意思和语法。我对英语学习完全没兴趣。[I don't like to be spoon-fed all the English meanings or grammar rules as in high school. I found no interest in English learning at all.]*

May: *我讨厌为了应付测验考试，逼着自己去记那些难记的生词及语法规则。我记得我上幼儿园时还挺喜欢英语的，但现在我一点都不喜欢*

了。[I hate to force myself to remember the difficult words and grammar rules due to the tests and exams. I remember I loved English in kindergarten, but now I don't like it.]

For the use of cognitive strategies, the students explained that they were very directly used and were frequently recommended by their previous teachers.

Jennifer: *我会经常看英语节目或电影来听他们的发音，然后试着去模仿。我的高中英语老师经常让我们多听多说来提高我们的英语水平。所以对我而言，这种方法我最熟悉。[I always watched English programmes or movies because I could hear how the English words were pronounced and tried to imitate them. My high school English teachers often recommended us to talk more and listen more if we want to improve our English. And so this is the most familiar strategy for me to use.]*

King Kong: *我认为重复和练习在英语学习中尤为重要。所以我经常把新学的单词写几遍并读几遍，这样有助于记忆。[I think repetition and practice are very important in English learning. So I often write or say the new words several times. It helps keeping the new things in my mind.]*

For the compensation strategies, the students explained that they helped compensate their insufficiency in English learning. They also admitted that their limited vocabulary range contributed to the adoption of this type of strategy.

Mary: *我喜欢根据上下文猜意思，因为一个个单词查意思太费时。而且我喜欢用手势来表达我的意思因为我的词汇量太小。[I prefer guessing the meanings from the reading contexts because it takes time to look for*

meanings word by word. Also, I like using gestures to further express myself because my vocabulary range is very small.〕

Gary: *我的词汇量小，所以要表达自己的时候，一些补救的策略像是做手势可以弥补我英语的不足。*〔*My vocabulary range is small, compensation strategies help to supplement my English weaknesses like using the gestures while expressing myself.*〕

The lecturer also agreed that compensation strategies are used very commonly in the classroom. However, they found their general strategy choice is very narrow.

Echo: *From my observation, compensation strategies were often used because it easier and probably they are more convenient for some lazy students……in general I can see their selected strategies are very limited. Some students even don't understand what "learning strategies" means.*

For the use of metacognitive strategies, the tertiary students expressed their rare use of them, however the lecturers observed that students' use of metacognitive strategies is very subconscious because they have no awareness of it.

Vicki: *我有时会从 BBC 网站上下载一些阅读材料来练习我的阅读技巧。它用的语言很生活化。内容也很贴近我们生活。学习起来更具现实和实践意义。*〔*I sometimes download the reading materials from BBC to practice my reading skill. The language used there is the daily life language. And the issues described there are actually happening around us. It would be more realistic and practical for me to learn.*〕

Werner: *I notice some students of mine did use metacognitive strategies but they didn't know about it.*

For the use of social strategies, the students also appreciated it in English learning especially the group activities in the classroom because they can get help from their classmates, but the students added that they preferred asking help from their classmates instead of their teachers because they are shy.

Vicki: *我喜欢英语课堂上的小组活动，因为组员之间可以互相帮助。每个人在学习中都会需要帮助。我不想每次都去问老师因为我胆子小。[I like group activities in English class because group members can help each other. We always need help in learning. I don't want to ask teachers each time because I am a bit shy.]*

The lecturers also agreed with the students. They explained that group activities can make the classroom less boring and more communicative. They observed that the students enjoyed it very much.

Sarah: *My students like group work activities very much. And they did try to communicate in English with their group members.*

This section presents the students' and the lecturers' explanations on the strategies commonly used by the tertiary students in Macao. In the next section, they will explain the relations between students' beliefs about English learning and the strategies they use to learn English.

4.5.5.3 Research Question 3: What are the relations between tertiary-level EFL students' beliefs about English learning and the strategies they use to learn English?

Generally, Macao tertiary students understand that there is a reciprocal relation between their language learning beliefs and their language learning strategy use. For example, one of the student interviewees, Edmond, expressed this relation by saying

that his beliefs about learning English directly influence his choice of language learning strategies because beliefs normally reflected his internal thoughts while strategy use was the behavior directed by his thoughts. As a result, he would employ language learning strategies that aligned with his beliefs about learning English.

Edmond: *信念反映我的想法，而策略应用正是在这信念下所作的行为，我会随着我的想法去做事。换言之，若我的信念有变，我的策略应用亦会随之而改变。[The belief shows what I think and the strategy use shows what I do under that belief. I will do following what I think. In other words, if my beliefs change, my strategy use will change then.]*

While Macao tertiary students understand the reciprocal relations between beliefs about language learning and strategy use, they confessed that they use the strategies subconsciously, as another student interviewee, Reece reports. In other words, Macao tertiary students might be using some of the learning strategies in the learning process but they were not aware of using these strategies.

Reece*:* *我认为我所用的学习策略与我的信念是相关的，但我会无意识地应用了它们。[I think I have used some learning strategies related to my beliefs. However, I employed them subconsciously.]*

The students' lack of awareness about their use of English learning strategies is further supported by the lecturers. The lecturers indicated that Macao tertiary students might not be very strategic but classroom observation showed they actually employed some learning strategies without knowing it. Sarah and Werner, two lecturer interviewees, explained what they observed in their classroom teaching.

Sarah: *…still they tend to use them [English learning strategies] and they might have unclear awareness of the typical names of the strategies but they are actually using them.*

Werner: *…Students may not be conscious in what strategies they are using. And they may not know the appropriate ways to approach their learning. In my experience, many students may not know what metacognitive strategies are. They are employing them subconsciously.*

The interviews showed that Macao students recognise a fundamental reciprocal relation between beliefs about language learning and strategy use in learning English, but that they were less strategic because, for example, they knew much less about strategies for learning English.

4.5.5.3.1 Relations between the belief in the difficulty of language learning and the use of cognitive strategies and metacognitive strategies

The quantitative findings indicate that the belief that learning an additional language is difficult was positively correlated with student use of cognitive and metacognitive strategies in language learning. Both students and lecturers agreed with the correlation with the cognitive strategies due to students' English learning experience and the nature of the mental process of cognition. However, they only partly agreed with the correlation with the metacognitive strategies because it involved some variation such as students' English attitude to learning, their English level and their awareness of metacognitive strategies. One of the student interviewees, Ray, expressed the following points of view about this relation.

Ray: *相信英语学习是困难的学生也可以是有策略的学习者，因为如果他们的学习态度正面，他们是会有信心和毅力去学好.....我认为英语*

学习困难信念和认知策略及元认知策略之间的关系是存在的，尤其是在澳门。首先，澳门学生在接受正规教育期间已习惯了对认知策略的应用，若他们想弥补自身的英语不足，认知策略会是最好的选择。第二，我们也明白到较弱的英语学习者必须在课本以外付出更多努力，他们一定要利用合适的元認知策略去应付及计划好自身的英语学习……但在大前提下，这类别的学生必须有充分的学习坚持和鼓励，因为他们在学习中最容易遇到挫折。[The students who believe that English is difficult can also be strategic learners because they might have the confidence and persistence to learn it well if their learning attitude is very positive ....I think the relationship between the belief about the Difficulty of Language Learning and the cognitive and Metacognitive strategies might exist, especially in Macao. First, Macao students get used to the application of the cognitive strategies in their formal education. If they want to repair their English weaknesses, cognitive strategies would be their best choices. Second, we understand that weaker English learners must pay extra effort on learning English apart from the English textbooks. They have to manage and plan their English learning with proper Metacognitive strategies ……However, they must have sufficient learning persistence and encouragement as this group of students might meet frustration more easily due to their learning difficulty.]

It is not surprising for Ray that cognitive strategies, recommended during formal education, are used more frequently by students who believe that learning an additional language is difficult as long as they have a positive attitude to learning because positive a positive attitude to learning can motivate them to confront the

learning difficulty and frustration with confidence and persistence. In addition, Ray agreed that students tend to be more proactive in finding ways to repair their English weaknesses if they believe that English is not mastered easily. Therefore, this group of students, no matter whether they are weak or strong learners of English, would also choose to employ metacognitive strategies, but Ray acknowledged that the weaker students of this group might indeed need more encouragement. Another student interviewee, Joanna, also expressed points of view similar to Ray's, and she further emphasised students' self-regulation as they learn English in relation to the use of metacognitive strategies.

Joanna: ……*就其与认知策略的关系而言我是完全同意。因为在正规教育下，不论是好学生或是差学生，也很重视这种策略的应用，故我们对这种策略较熟悉。至于与元认知策略的关系就很视乎学生本身是否自学能力较强……我认为英语的熟练度取决于学生持续的自我学习，所以当自学能力强的学生遇到英语学习困难时，他们会利用元认知策略去改善自己的英语。[……For the relation with Cognitive strategies , I completely agree. This type of strategy is actually used by both good and bad students because such strategies were emphasised in our formal education. So they are familiar to us. For the relation with metacognitive strategies, it very much depends on whether the students are self-regulated learners or not…..I think English proficiency relies very much on students' continuous self-regulatory learning. So self-regulated students who have difficulty in learning English would try to improve their English by means of metacognitive strategies.]*

Joanna agreed that the frequent use of the cognitive strategies during formal education contributes to Macao tertiary students' familiarity with this type of strategy, but she also indicated that the use of metacognitive strategies relied on the level of students' self-regulated learning, including for students who believe language learning is difficult. The student interviews show a positive response towards the relation between students' belief that language learning is difficult with the use of cognitive strategies, attributed to their English learning background during formal education. However, the relation with the employment of metacognitive strategies is restricted to students' personal learning attitude. In other words, if students hold the positive learning attitude, they will attempt to use different strategies that help, including the metacognitive strategies.

In response to the relations between the belief that learning a language is difficult and the use of cognitive and metacognitive strategies, the lecturers expressed different opinions. Although they agreed there was a relation, they tended to interpret it in terms of students' mental processes and their learning environment. Werner, one of the lecturer interviewees, indicated that it was possible for students who believed language learning is difficult to use cognitive and metacognitive strategies.

Werner: *The result is not surprising. It implies that learning process for them is difficult and causes them to think about what they are doing sometimes and spend more time on solving problems, so …cause them to use more Cognitive strategies. For Metacognitive strategies, it depends on their awareness of language learning…In my experience, many students may not know what Metacognitive strategies are. They are employing them*

subconsciously. So if students know how to learn and realize well about the strategies, they will definitely use them.

According to Werner, the use of cognitive strategies is a function of the students' natural mental process of cognition, especially for those who believe that learning English is not an easy task. They have to find a way to tackle their difficulty with learning English, and so cognitive strategies were used. In addition, Werner also indicated that the use of metacognitive strategies among the same group of students was possible too as long as they are aware of metacognitive strategies. From this lecturer's classroom observation, Macao students do use some metacognitive strategies subconsciously. Another lecturer interviewee, Nikko, also expressed a positive response to the question about this relation; but she tended to underscore the influence of the learning environment.

Nikko: *Poor learners do not have enough knowledge to manage how to learn well. They are likely to follow the teachers' instruction including the recommended strategies, so cognitive strategies are their choice as they are commonly used in primary and secondary education. However, when students get better in English learning with more approaches to learn a language, they have the ability to do that…that is, metacognitive strategies are used. So I think this relation depends very much on students' English level.*

According to Nikko, the learning environment and the teacher's role are underscored in the relation. She agreed that students who believe learning an additional language is difficult would use both cognitive strategies and metacognitive strategies depending on the students' ability to learn English, because she thinks that metacognitive

strategies are not likely to be adopted by the less capable students. She also considered that the relation was built upon an increasing awareness of English learning strategies for learning English.

Although both students and teachers explain this relation in a different way, they both perceive a causal relation between student beliefs about language learning and their strategy use. From the interviews, students attributed their use of cognitive strategies to their teachers' approach during their previous study, which is exactly the same as the strategy awareness mentioned by the lecturers in the interviews.

4.5.5.3.2 Relation between the belief that learning an additional language is difficult and the use of compensation strategies

Round 1correlational results show that students who believe that learning an additional language is difficult are likely to use compensation strategies. This is attributed to three fundamental reasons: the shortage of real practice, a lack of confidence and the big gap between the English learning contexts in secondary schools and in universities. Kong, a student interviewee, explained the first reason.

Kong: *对，我同意。但这种关系较多在英语会话中出现。澳门学生普遍来说英语口语不太好，因为他们缺少实际操练的机会，所以当要用英语去表达自己时，弥补策略就显得特别有用和有帮助了。[Yes, I agree. But this relation always comes more during English conversation. Macau students in general are not good at oral speaking because they have less real practice. So compensation strategies are very useful and helpful for expressing themselves in English.]*

Kong indicated that Macao tertiary students were nervous and at a loss when a real communicative opportunity comes up because they lack real practice during their

English courses. The employment of compensation strategies may be an immediate and helpful solution to their limited English language ability. Bessie, a lecturer interviewee, mentioned the second reason in response to the question about this relation.

Bessie: *Yes, I agree. If students think English is easy, they are normally proficient and can freely express themselves and they don't have to use compensation strategies. So students with this belief might use this type of strategies such as gestures and expressing in mother language, because they might not be confident in using English.*

According to Bessie, students of this group normally had less confidence when using English. They manage to create a secure English context for themselves, and the use of compensation strategies might be a good way to build a context where they feel comfortable and easy in using English. Another lecturer interviewee, Werner, focused more on the change in the English learning context from school to university while explaining this relation.

Werner: *I think a lot of students believe in the difficulty of language learning especially after coming to the university context where they have to use English to learn other subjects rather than just learning a language separately as in the high school context. I observed that students of this type feel quite lost … and compensation strategies are always employed when doing the English oral presentation or reading the textbooks written in English.*

Werner believed that there is a big gap between the secondary school context and the university context. He explained that English is learnt as a subject in secondary school

while in university English functions as a medium of instruction and a communication tool. Macao tertiary students, especially the first year students, may not be able to adapt easily to this change and for that reason think that English is difficult, and so compensation strategies are very commonly employed.

The positive relation between the students' belief that learning an additional language is difficult and the use of compensation strategies indicates, inspirationally, that Macao tertiary students are capable of using English learning strategies. But on the other hand, it reveals some of the causes of the uses of compensation strategies, including the shortage of real practice, lack of confidence and the big gap between the English contexts in secondary schools and universities.

4.5.5.3.3 Relations between the beliefs in relation to the nature of language learning and the use of affective and social strategies

Correlational results of the quantitative phase show that students who have beliefs in relation to the nature of language learning, that is, in relation to the features or characteristics of language learning, use fewer affective and social strategies. In response to the questions about these relations, both students and lecturers had opinions about this relation. Macao tertiary students tend to value highly the roles of learning vocabulary and grammar rules in learning English because of the influence of traditional grammar-translation methods for teaching English which they experience in the past in Macao secondary schools, so this relation may not be generally true for English language learners in other regions. Jason, a student interviewee, expressed his view in response to questions about this relation in the following way.

Jason: *这并不完全正确，很视乎学生深信哪种学习语言的特性。我认为澳门学生在英语学习方面较强调词汇和文法的练习，所以记忆策略对*

他们来说似乎比情感策略和社交策略更为必要……再者，澳门学生在英语学习方面都是较被动和害羞，所以他们才会较少选用这两种策略。[This is not always true. It depends on what kind of beliefs in relation to the nature of language learning the students hold. I think Macao students generally concentrate very much on vocabulary and grammar in learning English. So they might think that memory strategies were far more necessary than affective strategies and social strategies …… In addition, Macao students are passive and shy in learning English, so these two kinds of strategies might not be their favourite choices.]

Accustomed to beliefs about the traditional approach to learning English, according to Jason, memorising new words and grammatical rules seem to be Macao tertiary students' typical learning mode. In the context of students' typical passive role in the English classroom, the use of affective and social strategies when learning English sounds strange to them. While Jason explained the source of this relation, another lecturer interviewee, Bessie, further pointed out the cause of this relation.

Bessie: *This group of students may consider good language learning should occur in a typical context or under a certain condition. It happens very naturally under these typical settings…and they don't think they have to put extra effort on it [English learning]. So they may use less Affective Strategies and Social Strategies…or even other strategies to encourage themselves.*

Bessie attributed the effect of student beliefs in relation to the nature of language learning to this relation. She thinks that students who hold the general beliefs in

relation to the nature of language learning normally are greatly concerned about the role of the language learning environment or condition rather than about themselves as learners of English. They believe that if an appropriate or supportive English learning environment or condition is available, students can learn and pick up the language naturally. From her teaching experience, students of this group were not strategic or did not even attempt to be strategic because they considered any learning effort to be of no avail when they were in inappropriate language learning contexts. In comparison with Bessie, another lecturer Sarah showed a more optimistic opinion in response to questions about this relation.

Sarah: *I agree with the first relation but not the second one. I think this group of students will try to create an appropriate learning atmosphere for their own learning, where they can apply the language well. So social strategies such as group works are sometimes used…but of course it depends a lot on what types of beliefs the students have. Also, from my observation, students of this group are not motivated and normally are the weaker students. If they face the learning frustration, they simply give up. So…affective strategies seem not very necessary for them.*

Sarah agreed that this group of students might be less motivated or weaker in their learning of English. So it is true that affective strategies may be less commonly used by this group. However, from her classroom observation, this group of students enjoyed using social strategies because with these strategies students could learn different English skills from their classmates.

Both students and lecturers agree or partly agree that the relations between students' beliefs in relation to the nature of language learning and their use of the affective and

social strategies. From the students' point of view, their beliefs in the nature of traditional English learning results in less use of affective and social strategies, which isolates them and sometimes make them feel helpless on the English learning path.

From the point of view of the lecturers, in contrast, these negative relations can be improved through the creation of particular kinds of classroom teaching environments. Students' infrequent use of affective and social strategies might be due to their lack of awareness of these strategies, but not their rejection of them. Furthermore, Macao tertiary students, especially those who have their own beliefs about the nature of language learning such as "The most important part of learning a foreign language is learning vocabulary words", may not find it easy to attempt to change regarding new learning strategies. More importantly, this group of students is likely to give up when learning difficulties arise because they tend to blame unsuccessful learning on the learning environment or on conditions being not suitable for learning English. As mentioned by Sarah, the most effective way to engage students in the English learning environment is with affective and social strategies. When students are aware of these strategies and understand the advantages of these strategies, they are more willing to employ them.

4.5.5.3.4 Relations between the belief that gives students confidence in their ability to learn English in the long run and in the use of affective strategies and social strategies

Correlational results in the quantitative phase indicate that students whose beliefs give them confidence they will learn English in the long term tend to use affective strategies and social strategies. In response to this relation, both students and lecturers expressed their supportive opinions. They thought that students' 'long-term' confidence did help to promote their learning desire, determination to overcome

difficulties and build their interest in learning the language. Maybo, one of the student interviewees, pointed out that this kind of learning confidence can make students want to learn more because they believed that they would achieve success one day in future.

Maybo: *我认为对英语学习拥有长远信心的学生特别有学习的渴求，对未来英语学习的成功希望正是他们现在的学习动机。所以当遇到困难时，他们会利用一些情感策略去鼓励自己继续向前.....而且由于学习的热切渴求和动力所至, 这类学生较能勇敢和正面地去面对学习错误, 他们很愿意在别人面前请教和用英语, 故他们较多选用社交策略也不足为奇。[I think 'long-term' confident students are eager to learn, and their English learning success in future depends on their current learning motivation. So they might need affective strategies to encourage themselves to go forward along the learning path especially while the difficulty is met…… Moreover, this group of students are more open-minded in making mistakes due to the learning eagerness and motivation. They would be more willing to ask and use English in front of the others, and so it is not strange that Social Strategies are their preference.]*

According to Maybo, this group of students is more resistant to learning frustration because their learning desire and confidence can strongly back them up when facing learning problems. With this belief, students will use affective strategies more skilfully when learning English. Moreover, this group of students is more willing to learn by communicating with others because they understand that it is more natural to learn a language in a conversational environment, in which mistakes are tolerated. Hence, this group of students is also likely to employ social strategies. The lecturer

interviewees, Nikko and Bessie, agree with the students' points of view about the use of affective strategies among this group of students because learning confidence indeed helped develop students' learning motivation and interest especially when the confidence was a long-term one. They need to use affective strategies to overcome their negative feelings about learning, so that English learning can be long-lasting. However, they tended to tie up students' use of social strategies with the students' personalities and characters.

Nikko: *I agree. This group of students will manage to overcome difficulties during the learning process. So it makes sense to me if they use more affective strategies. For social strategies depend on students' personalities. In other words, if they are very confident but very shy, they still will not use the social strategies.*

Bessie: *This student group must be motivated and interested in language learning…If students have the confidence and are motivated, they will use affective strategies to encourage themselves. Furthermore, if they are not shy and believe in the social interaction, they will adopt social strategies. So for the affective strategies, the relation is acceptable…while the social strategies depend on the students' characters.*

According to Nikko and Bessie, students' long-term confidence may not directly relate to their use of social strategies, rather it depends very much on students' personalities. This interesting finding explains the reasons why in an English classroom some proficient and confident students prefer individual assignments to group work activities while some weaker students are keen on the latter. In the interviews, Maybo might simply be thinking of the confident outgoing students when

discussing this relation. Nikko and Bessie, as experienced lecturers, considered more the shy and timid students. Therefore, the relation between students' learning confidence and the use of social strategies involves a lot of variation which should be attended to in the language classroom.

4.5.5.3.5 The relation between the belief in the effectiveness of learning and communication strategies in learning English and the use of Memory Strategies

Correlational results in Round 1 showed that students who believed in the effectiveness of learning and communication strategies in learning English tended to use fewer memory strategies. In the interviews, both students and the lecturers expressed responses supporting this relation and attributed the causes to students' learning effectiveness, learning style and learning focus. Macao tertiary students are keen on memorising, but there are also many Macao tertiary students who believe in the effectiveness of communication strategies when learning English. As one student interviewee, Reece, mentioned, students who believed in the effectiveness of language communication highly valued the communicative approach to learning English, and so memory strategies might not be their preference.

Reece: *…因这群学生已把英语沟通视作为英语学习最重要的一环，而英语沟通需要的正是实际的对话训练而非牢记，故我同意有此信念的学生会较少应用记忆策略。 […. This group of students has seen English communication as the most important part of learning English. And English communication needs real dialogue practice rather than memorisation. So I agree that students with this belief are unlikely to employ memory strategies.]*

In other words, the students with this belief would think that practising English within an authentic language context was far more practical and effective than memorising the patterns of mechanical dialogues, grammatical rules and new words from textbooks. This also directly influences students' learning styles, as pointed out by one lecturer interviewee, Echo, who thought that students of this group were usually more sociable and willing to communicate with others in English. Gradually this becomes the students' learning style.

Echo: *...Active students in my class love communicating in English. They are not good at memory strategies. In my opinion, students who eager to communicate are normally outgoing. Memorising might not be their learning style.*

When students engage themselves more in a real conversational English learning context, they find it easier to learn or even pick up subconsciously the expressions, words, and grammatical rules. This kind of knowledge can stay in the memory much longer because it comes naturally rather than being built from a forced process of memorisation. And being constantly engaged in learning can easily become the students' learning style in which memory strategies are of no great importance. On the basis of the belief in the effectiveness of strategies for learning English, the students tend to focus more on language fluency than on accuracy. As indicated by another lecturer interviewee, Sarah, students' English mistakes are forgivable as long as they use fluent language.

Sarah: *... This group of students tends to focus more on fluency rather than accuracy. Students of this group think memorising vocabulary and*

grammatical rules are meaningless and unnecessary in language learning because language must be put into real use.

Sarah's point might help explain why this group of students use fewer memory strategies. She implies there is a risk to their learning of English among students who hold this learning focus. Focusing mainly on English fluency might be feasible speaking English or among the beginning learners of English. However, once students have reached the academic level at university, the grading criteria are much more demanding, for example, reading and writing English. Hence, if students focus too extremely on one learning strategy in a tertiary English classroom, this needs to be noted because it might hinder students' comprehensive learning of English.

4.5.5.3.6 The relation between students' motivation to learn and the use of affective strategies

Correlational results in the quantitative phase of this study showed that Macao tertiary students who were motivated to learn English tend to use fewer affective strategies. In general, motivated students are easier to instruct because they are ready to learn a certain kind of knowledge with determination, interest, and the expectation of success. As indicated by Ray, one student interviewee, this group of students was normally the better learners. They had learning confidence and the determination to improve and so comparatively they did not need affective strategies to help them learning English.

Ray: *在澳门，有动机去学英语的学生多数是较优秀的一群，他们在英语学习方面都是较卓越和有信心。所以他们并不需要太多心理上的安慰。而且，我觉得有动力去学习的学生能较积极地去面对学习上的问题，亦即是说他们会更努力地去作出改进而非自我安慰。故我很同意有学习动机的学生会不太多应用情感策略。*

[In Macau, I think motivated students are mostly the successful students. They are very good at and confident in learning English. So psychological comfort might not be so necessary for them. In addition, I think motivated students prefer facing the learning problems more proactively, that is, putting more effort to make improvement.

So I agree that motivated students use fewer affective strategies.]

According to Ray, motivated students are likely to confront their learning difficulties directly, proactively and enthusiastically, instead of admitting their incompetence. This kind of indomitable persistence in English learning is sourced from their motivation to learn, which explains the reasons motivated students use fewer affective strategies. Echo, one of the lecturer interviewees, also agreed with Ray's points. She reckoned that students' motivation to learn could lead to their risk-taking and the ability to overcome problems learning English. Hence motivated students are better in learning English and would have less need to use affective strategies.

Echo: *I agree. Students who are highly motivated do not need too much self-encouragement because their learning motivation is actually a kind of something to push them moving forward…and so fewer affective strategies are required.*

According to Ray and Echo, motivated students are competent enough to learn English without affective strategies, but their point of view is not supported by another lecturer interviewee, Nikko. She thought that motivated students should be much more skilful in using affective strategies to ensure their sustained learning of English over time because self-motivation was crucial for students on the learning path.

Nikko: *I don't think so. If they are motivated, they will use more affective strategies. If students did not encourage themselves in the learning process, how can they achieve the success [reach the goal of successful learning]?*

Nikko's differing opinion in regards to this relation gives us food for thought. This disputed relation implies that some kinds of variation might be involved. When interpreting this relation, it is important to consider whether the students are extrinsically or intrinsically motivated, or whether they are good or bad at learning English. In the interviews, Ray and Echo might stereotype motivated students, whether they were extrinsically or intrinsically motivated, as good English learners. This group of students rarely employ affective strategies due to their good results in English, which might lessen their opportunity to use affective strategies. However, Nikko was more concerned with intrinsically motivated students who might be weak in learning English. Although this group of students is motivated to learn, they still have to tackle the frustration and stress from bad results in learning English. Therefore, it shows the necessity for this group of students to employ affective strategies to pave a sustained path-way to learning success.

4.5.5.3.7 Relation between students' learning motivational belief and the use of metacognitive strategies

According to the correlational results in Round 1, students who had beliefs about learning English tended to use metacognitive strategies. In regards to this relation, the student and the lecturer interviewees had different opinions. Students in general partly agreed with this relation because they thought this relation relied more on students' learning ability and interest than on their motivation to learn the language. According

to Gary, one of the student interviewees, metacognitive strategies demanded that students have a greater ability to learn English.

Gary: *...我觉得这种关系很取决于学生英语学习的好与坏。有学习动机而且英语好的学生绝对是会利用元認知策略去增强自己的英语熟练度。相反，若他们是有动机但英语较弱的学生，便会较少去用元認知策略，因我覺得这种策略是需要学生有一定程度的英语能力。[...I think this relation depends very much on whether the students are good or weak in learning English. If the students are motivated and good at learning English, they surely will employ more metacognitive strategies to further strengthen their English proficiency. If they are motivated but weak, they might use fewer metacognitive strategies for which, I guess, a certain standard of English proficiency is demanded.]*

Gary's concern about students' use of metacognitive strategies is reasonable because this type of strategy does require students to have a certain proficiency in different English skills. In addition, students' self-regulated control of their English learning is also very necessary. Hence using metacognitive strategies will be too demanding for the less successful students who are still at the stage of learning 'what to learn' rather than 'how to learn', especially when their learning target is a foreign language. Apart from the concern about students' learning ability, Hou, another student interviewee, indicated that for motivated students' interest in what they are learning was the key to their use of metacognitive strategies.

Hou: *...那很视乎学生持有哪种学习动机。我个人认为学习兴趣是最主要的一种推动力，若学生对英语学习感兴趣，定会多用元認知去学习英语，因这类策略需要学生的坚持和自发性。但我知道普遍澳门学*

生的学习动机都是纯猕为应付考试，这种动机是很难持续的，所以你所提及的关系未必完全是对的。[…it depends on what kind of learning motivation the students hold. In my opinion, learning interest is the most important type of motivation to learn. If students are interested in learning English, they will be more likely to learn English with metacognitive strategies which require students' persistence and self-regulation. However, I understand that many Macau students are motivated simply to pass exams. This type of motivation is difficult to sustain. So the relation that you mentioned might not be always true.]

Students' interest in what they are learning indeed stimulates them to persist with the learning and self-regulation, which together help to foster strategic learning and make it easier. Students in this group are more willing to learn English well by means of a variety of strategies, including metacognitive strategies. However, the prevalence extrinsic motivation to learn English, according to Hou, does lessen students' use of metacognitive strategies. So he implied that this relation might not be favourable for the majority of Macao tertiary students. From the interviews, it seems that Macao tertiary students are likely to set a lot prerequisites for themselves in before using metacognitive strategies, while the lecturers tend to support this relation provided the students are motivated with metacognitive awareness. Echo, one lecturer interviewee, indicated that motivated students were usually ready for metacognitive strategies because they clearly understood the importance of metacognition to their learning.

Echo: *Motivated students want to learn English well. They try every possible approach to assist their English learning. So learning how to learn is the process they are willing to experience.*

Aligning with Echo's opinion, another lecturer interviewee Werner further emphasised the supportive role of the lecturer provided that the students had metacognitive awareness and the opportunity to use metacognitive strategies.

Werner: *Good learners know how to apply strategies successfully. If they have metacognitive awareness, and they apply it frequently, they definitely will use it more.*

Werner believes that with sufficient help motivated students can be metacognitively strategic. In other words, lecturers are responsible for engaging students in a metacognitive learning environment where they are able to use metacognitive strategies frequently. In contrast with the students, the lecturers expressed confidence in the motivated students' use of metacognitive strategies, but during the process of students' metacognitive learning, the lecturer role is of great importance. The lecturers have to consider how to foster students' learning metacognition, for example, by recognising their own learning ability and how they themselves have learnt. But more importantly, the lecturers have to help students realise that they need to change the way they see themselves as learners.

4.6 Summary of the chapter

In this chapter, the three research questions relating to students' beliefs about learning English, students' strategy use when learning English, and the relations between their beliefs and their strategies use were addressed. The study results reported in this chapter were gained from the quantitative analysis of the questionnaire survey and the thematic analysis of the two open-ended questions and the interviews.

To contribute to answering the first research question, this chapter reported the most common beliefs of Macao tertiary students about learning English. Generally, Macao tertiary students are motivated to learn English because English has become increasingly important in Macao. However, such motivation is mainly limited to the extrinsic and instrumental needs related to study and work. Moreover, Macao tertiary students are not confident when communicating in English due to insufficient communication practice in English classes and in their real life. The students also believe that age and aptitude are two important factors influencing the learning of an additional language. According to them, young students and students with certain language aptitudes find it easier to learn a language. More significantly, Macao tertiary students are strongly influenced by their accustomed belief in the importance of repeated practice, pronunciation, and vocabulary learning.

To contribute to answering the second research question, this chapter has also presented the strategies for learning English commonly used by Macao tertiary students. They employed a variety of types, or categories, of learning strategies but not in a high frequency overall. When they use strategies for learning English from the memory strategy category, students tend to memorise the rhymes of the new words rather than adopting other learning tools such as flashcards, but more seriously they are unlikely to revise what they have learnt to strengthen their memorisation. When the students use strategies for learning English from the cognitive strategies category, the students prefer learning by using audio-visual media. However, they do not tend to use strategies from cognitive strategies to practice English reading and writing skills. The use of strategies from the compensation strategies category is in contrast comparatively wide and prevalent, with the students reporting their use of guesses, gestures, making-up of new words, and word replacement. Finally, the

students showed they want to use strategies from the metacognitive strategies category, but not in a very pro-active manner. For example, they simply tried to find out ways to use English or to be better English learners instead of acting them out practically. They paid attention only when someone is speaking English rather than pro-actively seeking out opportunities to talk with foreigners. Moreover, the students overall display their weaknesses in planning, evaluating and setting goals for learning English. Macao tertiary students also reported their use of strategies from the affective strategies category, such as relaxing themselves when they are afraid of using English, however, they do not tend to disclose their learning anxiety in front of the others. Contradictorily, when they use strategies from the social strategies category, the students are likely to ask the other people to slow down or repeat if they do not understand.

To contribute to answering the third research question, this section has presented the overall correlational results to show that students' learning beliefs and strategy use are reciprocally related, with overall correlations from weak to modest. This section concluded with a list of seven relations between students' beliefs about language learning and their use of strategies to learn English. These relations were further explained by the students themselves and their lecturers during interviews. The findings from both the correlation analyses and the interviews are summarised below.

1. **Macao tertiary students who believe that learning an additional language is difficult tend to employ more cognitive and metacognitive strategies.**

   Both students and lecturers agree that students who believe language learning is difficult employ more cognitive strategies because of these students' experience in learning English and the nature of the students' cognitive processes. However,

both students and lecturers disagree that this group of students will use more metacognitive strategies because they think the tendency in using the metacognitive strategies varies according to the students' attitude to learning English, their level in learning English, and also students' awareness of metacognitive strategies.

2. **Macao tertiary students who believe that learning an additional language is difficult are likely to use compensation strategies.**

   Both students and lecturers agree that students who believe learning an additional language is difficult use more compensation strategies because of these students' shortage of real practice, lack of confidence, and the big gap between the English leaning contexts in secondary schools and in universities.

3. **Macao tertiary students who have beliefs in relation to the nature of language learning tend to use fewer affective strategies and social strategies**

   Both students and lecturers agree that students with particular beliefs about the nature of language learning, such as the most important part of English learning is learning vocabulary or grammar, use fewer affective strategies and social strategies. The students attribute the infrequent use of affective strategies and social strategies to the traditional grammar-translation English teaching they experienced at school, a teaching approach which fostered mainly the use of memory strategies in memorising the meanings of vocabulary and the grammatical rules. The students also thought that the less frequent use of social strategies is mainly due to their passive learning characteristics. The lecturers explained that students with beliefs about the nature of language learning, such as English is best to be learnt in English-speaking countries, rely very much on their

learning environment rather than on the use of learning strategies, so they tend to employ fewer affective and social strategies or even other strategies. More seriously, this group of students may simply give up when they fail in learning English.

4. **Macao tertiary students who have 'long-term' confidence that they will learn English are likely to use affective strategies and social strategies.**

   Both students and lecturers support the finding that students who have 'long-term' confidence in their learning of English are likely to use affective strategies because this group of students has the desire to learn English, as well as determination and interest, and tend to resist any frustration with their learning through the skilful use of affective strategies. For the use of social strategies, however, both students and lecturers have diffident explanations. From the students' points of view, students with 'long-term' confidence are more likely to communicate with others in English as that is their final goal for learning English, and so social strategies are more prevalent with this group. From the lecturers' points of view, the use of social strategies is more closely associated with students' personalities or characters, and it is possible that confident students in learning English do not tend to use social strategies.

5. **Macao tertiary students who believe in the effectiveness of learning and communication strategies are unlikely to use memory strategies.**

   Both students and lecturers agree that students who believe in the effectiveness of learning and communication strategies are unlikely to use memory strategies. They explained that this group of students are more willing to learn in an authentic context where language knowledge can be picked up more effectively and easily.

Furthermore, this group of students focuses more on language fluency than on accuracy, and so the less frequent use of memory strategies among this group of students is acceptable to them.

6. **Macao tertiary students who are motivated in learning English use less affective strategies.**

According to the students, motivation to learn a language helps lead to increased courage and the ability in overcome the learning problems. As motivated students are more likely to learn in a pro-active way, affective strategies seem to be unnecessary for them. However, with regard to this relation, the lecturers tend to consider more whether students are extrinsically or intrinsically motivated. The lecturers explained that if students are intrinsically motivated but weak in learning English, they may use more affective strategies to help them tackle possible with learning frustration, and hence the lecturers think that the effect of this relation depends on how students are motivated.

7. **Macao tertiary students who are motivated in learning English tend to use metacognitive strategies.**

In the interviews the students explained that motivated students are likely to use metacognitive strategies provided they are proficient learners of English, and are interested in learning English, which helps them to persist with learning and with self-regulation. In the interviews, the students tended to set many criteria for adopting metacognitive strategies. Nevertheless, the lecturers saw this relation in a more straightforward way. The lecturers explained that motivated students will use metacognitive strategies if they are aware of this type of strategies and with the lecturers' proper support.

This chapter addresses the three research questions of this study. For research question one, the most common beliefs held by Macao tertiary students about learning English are presented. For research question two, the most common strategies used by Macao tertiary students when learning English are also reported. For research question three, the seven correlational results which present how these common beliefs and strategy use are related, along with explanations made by the students and lecturers are shown. These results and findings will be discussed in the next chapter, Chapter 5.

Chapter Five

Discussion and implications

5.1 Introduction

This chapter discusses the salient results in response to the three research questions of the study. First, all the salient results, that is, any beliefs with over 75 % of the responses on either agree or disagree, and any strategies with more than twice the number of supportive responses than unsupportive responses or vice versa, of Macao tertiary students' beliefs and their strategy use in English learning are discussed and the relations between their beliefs and strategy use. Next these results are interpreted to consider the theoretical, methodological and pedagogical implications of the study.

5.2 Macao tertiary students' beliefs about learning English

Tertiary EFL students in Macao have some common beliefs about English learning that are frequently held. They are beliefs about aptitude for learning a foreign language, the nature of language learning, learning and communication, the difficulty of learning English, and also motivation and expectations for learning a language. This section discusses what these beliefs reveal about Macao tertiary students learning English and about the teaching of English in Macao. Each of these types of belief will be discussed in sequence.

5.2.1 Beliefs about aptitude for learning a foreign language

The analysis of student responses to the aptitude for learning section of the BALLI has shown that Macao tertiary students have two main beliefs about aptitude for learning a foreign language. First, they believe that childhood is the best period for

learning an additional language because " …… children at this stage are more adaptable to new things …… " (see Section 4.5.5.1). Second, they believe that to learn a foreign language successfully, it is important to have a special, or innate, language learning ability, but they do not believe that they possess this innate ability, as pointed out by one student interviewee in the following way: " …… so I believe some people have special ability in learning language, excluding me." (See Section 4.5.5.1)

One inference that can be drawn from the evidence that these two beliefs are common among Macao tertiary students is the result, on the one hand, of their belief that they have already passed the optimum period for language learning (e.g. "*Language learning should start at childhood because they are more adaptive to the new things and knowledge*") and on the other hand of the belief that they were not born with a special ability to learn a foreign language (e.g. "*I found some of my classmates can speak English better than the others. So I believe some people have special ability in learning language, excluding me"*). This inference is supported by previous studies (Gregg, 1984; Griffiths, 2008; Ioup et al., 1994) in which students' beliefs about the link between biological maturation and language learning ability were found to hinder their language learning because these two beliefs about language learning lead to affective consequences, such as feeling ashamed or anxious when using an additional language (Cheng & Erben, 2011; Peng & Woodrow, 2010), and cultural consequences, such as feeling rejected by others while making mistakes when using an additional language (Csizér & Magid,2014) This is especially the case when students are maturing, that is, while at secondary school and university.

The findings in this study show that Macao tertiary students believe the best age to learn an additional language is during childhood and that some people have a special,

innate, aptitude for language learning help in understanding some of the reasons underlying the tendency for many Macao tertiary students to be reluctant learners of English, who lack confidence in their learning of English. However, these beliefs may not be the only, or even the main, contributors to many students' lack of success learning English because mature learners can learn a language very well as long as they are strongly motivated to learn (Griffiths, 2008). This implies that the commonly expressed belief among Macao tertiary students that they are too old to learn a language effectively and that they lack innate capacity to learn a language may merely be a superficial justification they use to account for their unsatisfactory English learning outcomes shown in Section 1.2.6.

Nevertheless, the pervasiveness of Macao tertiary students' beliefs about the optimum age for learning a language (Cook, 2013; DeKeyser, 2013; Lambelet & Berthele, 2015; Ortega, 2013) and innate ability to learn a language (Liddicoat & Scarino, 2013; Mercer, Ryan & Williams, 2012) should be a focus of attention. These beliefs probably formed very early and are so well entrenched that they strongly affect their learning of English. For this reason, it is important for teachers of English in Macao to account for these beliefs in their teaching programmes. For example, tertiary students in Macao need to be encouraged to understand that it is never too late for a motivated learner to learn English well and they must realise that learning English well does not need to be restricted to learners who, during the 'golden age', had opportunities to practise English communication, nor to learners with a special ability to learn an additional language. English teachers and lecturers must also recognise that increasing students' motivation to learn English is the essential prerequisite for students letting go these unhelpful beliefs.

5.2.2 Beliefs about the nature of language learning

The 'nature of learning' section of the BALLI includes items about the importance of learning the language-related elements such as vocabulary, grammar and cultures, and the importance of learning the language-related functions such as translation. Moreover, this BALLI section is also concerned with the uniqueness of language learning in comparison with the other academic subjects, as well as the language context that can foster learners' effective learning of English. The analysis of participant responses to the items in the 'nature of learning' section of the BALLI in this study shows that tertiary students in Macao believe that they become more successful learners when they prioritise the learning of one component of English, vocabulary, and they also believe that they can learn English more effectively when they learn English in an optimal learning context.

Macao tertiary students believe that vocabulary learning is the most important skill when learning English because knowing English words helps them understand sentences in written texts and also enables them to express themselves better in a conversation (see Section 4.5.5.1). But they are too biases towards learning vocabulary by rote due to the vocabulary-focused and exam-focused education system in Macao (Morrison & Tang, 2002), in which the spelling and meaning of English vocabulary were the components of English tested in English examinations. As a result, students were gradually made to believe that memorising vocabulary, both the spelling and the meaning, was important for learning English successfully.

The belief about the importance of memorising vocabulary for learning an additional language has been demonstrated in many studies (Holmes & Thompson, 2014; Morrison & Tang, 2002; Nostratina & Abbasi, 2015; Yang & Liu, 2014). However, in

this study, the Macao tertiary students' belief about vocabulary learning has been shown to be problematic in terms of how these students value vocabulary learning. Instead of treating the learning of vocabulary as one of the skills necessary to improve their English, tertiary students in Macao simply treat vocabulary learning as an instrument for passing examinations, as confirmed by the students in the interviews.

Moreover, this mode of vocabulary learning appears to have become habitual, not just among the Macao students but also among Chinese students in general. As reported by Rochecouste, Oliver & Mulligan (2012), Chinese background students are keen to employ strategies for learning vocabulary all of which are tantamount to rote memorisation, mirroring how the Macao students learn English vocabulary. Macao tertiary students' habitual learning of vocabulary by rote implies their overreliance on memorising decontextualised words in English (Gu & Johnson, 1996). This kind of decontextualised vocabulary learning has the potential to contribute greatly to their weakness in and dislike of reading English.

The analysis of participant responses to the items in the nature of learning section of the BALLI in this study has also shown that tertiary students in Macao are very much concerned with the context in which English is learnt. A majority of Macao tertiary students believe that it is best to learn English in English-speaking countries. To a certain extent, this belief reflects the students' desire to learn English well within an ideal language learning context where at least they can communicate with English speakers. However, as observed by the lecturers, Macao tertiary students do not speak up in class even they are always encouraged to speak in English with their foreign lecturers. This shows their passiveness and shyness in English speaking. In addition, students' habitual rote learning of English vocabulary is only of limited value to their learning of English because they do not practice pronunciation in the context of

spoken interaction. Their shyness, which it can be assumed contributes to weak pronunciation skills, makes them miss out on a lot of opportunities to speak English.

While Macao students' belief that memorising vocabulary by rote is the most important aspect of learning English and the inability to capitalise on their belief about the optimum context for language learning can be understood as a barrier to successful learning of English, these beliefs can also be exploited by teachers of English in Macao as a means for shifting their students' learning of English in a slightly more useful direction. Below are some examples of ways in which teachers of English might exploit these beliefs to improve Macao tertiary students' English learning outcome.

Learning vocabulary is important, but it should not be limited to the rote learning of meanings and spellings. The motivation to use rote-learning to a large extent is the consequence of an examination-oriented approach. To address these issues, teachers can firstly shift their assessment criteria more toward the authentic use of vocabulary to release students from the burden of learning vocabulary for examinations only. Then teachers can increasingly encourage students to use more practical strategies for learning for vocabulary, for example, learning vocabulary in the context of daily life or from their reading, or through activities based on visual images, as well as learning vocabulary during pronunciation activities, or during activities that focus on the morphemes and syllables of English words.

There are limited opportunities to speak English or listen to a speech in English in countries where the native language is not English (Shadiev, Hwang, Huang, & Liu, 2015). Similarly, even though Macao tertiary students believe that learning English in English-speaking countries might be optimal, they can be shown that English can be

learnt effectively in other contexts as well. An authentic environment for learning and communicating in English can be created within a classroom, within a family or even within a society, depending on the extent to which policy makers and designers of English language courses are determined to achieve this goal. At the school level, teachers can encourage more communicative teaching methods such as Communicative Language Teaching (CLT), which aims to provide the learners with opportunities to learn and use the target language in L2 contexts (Savignon, 2005, 2007; Farooq, 2015), and Task-Based Language Teaching (TBLT) in which real-world tasks are intended to provide 'situational authenticity', in the sense that the tasks are genuine exemplars of what the learners can be expected to have to do outside the classroom (Ellis, 2003; Bygate, 2015). In addition, the genre-based teaching approach is also effective because it demonstrates not simply a model of integrated skills teaching and learning, like written and oral literacy, but also multimodal literacy (Derewianka & Jones, 2012). Furthermore, students can create an authentic English learning environment for themselves by means of digital technology platforms such as the digital game-based online learning platform *Livemocha* (Hwang, Chiu, & Chen, 2015), which is an online learning platform for polishing English with partners around the world (Kozar, 2015), and *WeChat*-based mobile learning which provides a mobile multimedia learning platform for enhancing collaborative communication to a high level of interactivity and operability (Guo et al., 2015).

5.2.3 Beliefs about learning and communication

The 'learning and communication' section of the BALLI includes items about the importance of repeated practice on the accuracy of English pronunciation, the importance of communication with English speakers, of the use of guessing and

audio-visual materials. This section of BALLI also covers items about students' feelings about language learning.

Macao tertiary students believe that it is important to practice English through repetition and to speak English with the best possible pronunciation. The students explained that practice through repetition helps them remember what they have learnt, while speaking English with the best possible pronunciation helps others to understand them better and also strengthens their confidence when talking in English. These two beliefs seem to be interrelated because, according to the students in the interviews, excellent pronunciation can be achieved through repeated practice, i.e. to practise the pronunciation again and again.

The absence of an English context, a deficiency of good spoken English examples, and excessive dependence upon traditional teaching techniques are the main factors that lead to a lack of verbal and aural practice (Cheon, 2003; Morrison & Tang, 2002; Shadiev et al., 2015; Tsou, 2005). In Macao, tertiary students want to speak English fluently but they feel their spoken English is very weak, because they do not have enough opportunities for repeated communicative practice in their English classroom and in daily life. Therefore, the lack of opportunity for real-life communicative practice might be the reason for their low English fluency. The lack of authentic English practice is perceived by the student interviewees to be attributed to the traditional examination-focused English classroom atmosphere (see Section 4.5.5.1) where a teacher-centred style of teaching dominates and students' interaction is less encouraged.

As pointed out by the student interviewees (see Section 4.5.5.1), the lack of communication practice also contributes to students' poor English pronunciation,

which further contributes to their unwillingness to communicate in English. This explains why students are not willing to speak in the tertiary English classroom even when English communication is highly encouraged. This learning phenomenon is consistent with other studies of Chinese students learning English (Peng & Woodrow, 2010; Peng, 2011). Peng and Woodrow's study, for example, reflects a similar phenomenon among Chinese students, that is, their unwillingness to communicate in English even in the English classroom.

Thus, it appears that while this study shows Macao tertiary students are motivated to learn English for communicative purposes, this belief has not been effectively cultivated during their formal school education to offset their weakness in pronunciation as well as their unwillingness to communicate in English, which perhaps has cultural origins. The study also shows that first-year tertiary students start to realise the importance of real-life communicative practice when learning English because of the different classroom environment at secondary school and at university where the real use of English is more required. However, it seems, even at university, that students still do not strive to improve their English pronunciation and communicative skills pro-actively because they have grown used to being quiet in the foreign language classroom.

Although Macao tertiary students understand the need to be able to use English communicatively, they do not feel the immediate need for them to use English socially, which aligns with Murray and Christison (2011) and Susanna (2007), who report that because students cannot see a real practical need for English in their future, there was a mismatch between the students' conceptual and cognitive capacities and their English proficiency level. In the interviews, the students explained that practical oral communication was overlooked in secondary school English classes, and thus, they did

not feel they had any contact with the communicative function of English. However, when they enter the university, they experience personally the communicative function of English. In other words, at university they do not simply have to use English in their daily English assignments but they also have to use English as a tool to understand other academic subjects.

Macao tertiary students also believe that it is important to speak English with the best possible pronunciation, which is consistent with Peng (2012), who has shown that Chinese students believe that their English pronunciation should be carefully corrected by teachers during communicative practice, indicating that students expect to achieve the highest possible pronunciation standard in their spoken English. In response to this belief, computer-assisted pronunciation teaching (CAPT) should be encouraged at university. The design of the software should be based on evidence derived from research, and pronunciation training should be provided for students in the language program's computer laboratory (Thomson, 2011). Moreover, the popular *WeChat* has affordances for creating a favourable mobile English language learning environment (Guo et al., 2015), while also improving English pronunciation. The basic *WeChat* functions of voice messaging and group chat provide an environment for collaborative learning between groups and interactive communication among students, or between students and teachers. Students can improve their English pronunciation either by learning from others or hear what they have said.

Macao tertiary students' belief in the importance of excellent pronunciation could be a kind of motivation for successful English learners to further polish their English pronunciation. On the other hand, however, according to the lecturers in the interviews, this belief hinders the low-achievers' willingness to speak. As shown in Rany, Abidin and Mei (2013) and He (2013), students lose their confidence to use

English under this kind of stress because of the shame they feel if they make mistakes in front of their peers. Moreover, too much concern about correctness or accuracy when speaking English might indeed block the natural flow of a real conversation as well as students' motivation to speak in English, with the result that the less confident students feel more secure by keeping silent in an English class.

Macao tertiary students believe that they cannot accept that a student with more than fifteen-years experience in learning English still cannot speak English competently. This lack of competence is mainly a consequence of insufficient authentic English practice. Students must be shown and come to understand what authentic practice of English means and that it is best to learn English through communication and that English practice is best when it is immediate and authentic, rather than learning from those previously designed fixed patterns of dialogues. Students' immediate responses are the essence of learning in an authentic context, where they are exposed to the use of many strategies and they can pick up words without learning new words by rote. In addition, teaching approaches such as TBLT or CLT, and other computer-assisted and technological learning approaches have the potential to create a better communicative learning environment. More importantly teachers and students must realise that the production of an authentic communicative environment in a classroom should not be restricted simply to a shift in teaching approaches but also should be based on the fundamental understanding of the effectiveness of learning through communication.

5.2.4 Beliefs about the difficulty of learning an additional language

The 'difficulty of language learning' section of the BALLI includes items about the difficulty of learning English and also about students' confidence to overcome the

difficulty. The analysis of participant responses to the items in the 'difficulty of language learning' section of the BALLI in this study shows that tertiary students in Macao do believe that learning English is difficult. They do not believe that English is an easy subject because of their unsatisfactory English outcome (see Section 1.2.6) and their lack of confidence in learning English (see Section 5.2.1). This section discusses these two main causes in terms of the English language itself and the students' own ability in learning English.

Macao tertiary students believe that English is difficult in the same way as an American who considers Chinese is not easy because these two languages share different writing systems, different grammatical usage and different sounds (Orozco, Orozco, & Todorova, 2009). Among these three causes, the last two ones may be more influential for the tertiary students because in the interviews they explained that they hate memorising the grammatical rules while they were also very weak in the word pronunciation. These two causes may contribute to their unsatisfactory learning outcome because under the traditional teaching approach in Macao, English grammar and vocabulary learning are the two of the main areas of language to be assessed (Morrison & Tang, 2002). In other words, these two areas of English, that is, grammar rules and word pronunciation that Macao tertiary students' are weak in are the two main English components to be tested by schools, thus predicting an unsatisfactory English outcome, or in fact proving Macao tertiary students are less successful English learners (see Section 1.2.6). For this reason, English is deemed to be difficult by the Macao tertiary students.

In addition, Macao tertiary students' insufficient confidence in learning English is another cause of their belief in the difficulty of language learning. As mentioned in the previous sections, Macao tertiary students believe that they have passed their best

period for learning English, they do not have the special ability to learn English, and they could not learn English easily even in an optimum communicative classroom environment or in English-speaking countries. These beliefs about English learning cause self-doubt about their own intelligence and ability to overcome the difficulty of learning English. They may regard English as a difficult subject which is beyond their capacity to learn. The discouraging effect on students of this negative influence is addressed by Bahous, Bacha and Nabhani (2011), who express concern that, when this is the case, students might think learning English is a waste of time.

Macao tertiary students believe that learning English is difficult because of their unsatisfactory learning outcome and insufficient confidence. However, these two causes are factually interrelated. These unnecessary beliefs can be addressed in terms of the teaching methodology, for example, more communicative teaching approaches could be adopted, as discussed in Section 5.2.2. Students can be exposed to an authentic use of English in this communicative learning environment, learning and using English at the same time, even learning from their mistakes. When the students are able to use English more frequently, and then more accurately after learning from their mistakes, during the learning process, they will definitely become more confident in using English and in overcoming the difficulties.

5.2.5 Beliefs about motivation

The ‘motivation’ section of the BALLI includes items about the importance and the intention of learning English, as well as students’ expectation after learning English. The analysis of participant responses shows Macao tertiary students want to learn English well and they believe that learning English is important in Macao because learning English helps them get a good job. The study, therefore, shows that tertiary

students in Macao are motivated to learn English in order to expand their further study and employment opportunities.

Tertiary students in Macao believe that a good command of spoken English is very useful for job seeking. This motivational belief can most likely be attributed to the increasing status of English in Macao due to the large inflow of foreign investment since the opening of the gaming industry in 2002. A good command of English in this context, thus, would help increase students' job opportunities, especially their capacity for success in job interviews and workplace communication carried out in English. This result is in line with what has been found in Yang's (1992) and Park's (1995) studies. In responding to one of the BALLI item 'If I learn English very well, I will have better opportunities for a good job", 87% of the Macao tertiary students in this study, 88% of the Taiwan tertiary students in Yang's study, and 89%of the Korean tertiary student in Park's study responded positively. This shows tertiary students' instrumental motivation is very prevalent especially for employment purposes in Asian regions. This motivation further supports the view that Macao tertiary students' motivation for learning English is aligned strongly within instrumental goals, such as improving examination results and employment opportunities, rather than intrinsic motivation for learning English and the desire to learn English over the long term. As stated by the lecturers in the interviews, for many Macao tertiary students, English is no more than a compulsory subject they have to study for their final grades.

This type of motivational belief is consistent with what has been found among Chinese students in previous studies (Huang, 2011; Kong, 2009; Pintrich, 1999; Wang, 2008), which all show that achieving good grades or passing an examination is an overriding motivation to learn English among Chinese students because it is a baseline for graduation from a university and a stepping-stone for future work. In addition,

another local study by Young (2006) also indicates that Macao tertiary students have very positive attitudes towards English learning but their learning motivation is very extrinsic and instrumental. With this instrumental learning motivation, Macao students are more likely to quit English learning once their practical learning goals were achieved.

Motivation was shown to be a cause of both self-confidence and the use of L2 learning strategies (Dörnyei & Skehan, 2003). In turn, if the use of L2 learning strategies is very narrow, as for the Macao tertiary students, obviously they are not motivated L2 learners or they may at most be the extrinsically motivated L2 learners. Enhancing students' learning motivation should be regarded as the top priority prior to the teaching the language learning strategies. According to Cohen (2010), L2 motivation can be promoted consciously, which means it must be possible to design classroom teaching that enhances the motivation of Macao tertiary students to learn English. First, the traditional grammar-translation teaching environment (usually teacher-centred) should be shifted into a more interactive one. Second, more group work activities should be promoted, so that students can build up their learning motivation as well as their confidence with the help of classmates within the same group. Third, English learning goals should be set within the students' capability, so that, rather than experiencing frustration, they can anticipate successful learning.

5.2.6 Macao tertiary students' beliefs about learning English: insights

Generally Macao tertiary student believe that age and aptitude are very important to their language learning. They are concerned very much with vocabulary learning, grammar learning and also the pronunciation of words. Macao tertiary students do not

think English is an easy language because of their unsatisfactory leaning outcomes and their low confidence in speaking English. However, Macao tertiary students still want to learn English well because it helps them to find a good job, which reflects the students' strong extrinsic motivation in learning English.

Macao tertiary students' unsatisfactory English learning outcomes may not be completely attributable to their language incompetence; instead, it may be affected by their perceived beliefs about learning English and also the traditional English teaching approach in Macao (Lai, 2015).

Macao tertiary students are not confident in their own language ability but also lack confidence in the overall ability of Macao people to learn English. These beliefs imply their negative view towards Macao as a good English learning environment, which to a large extent lessens their confidence in learning English successfully in Macao. Although they are extrinsically motivated to learn English for employment purposes, this may be only restricted to the institutional learning environment. The sample students in this study are eager to learn English well, even though this desire to learn is very extrinsically motivated (Banisaeid & Huang, 2015; Dörnyei, 2012; Ehrman & Oxford, 1989; Gao, 2010; Noels, Pelletier, Clement & Vallerand, 2000). Encouragingly, students with extrinsic motivation learn more effectivley than those with no motivation at all. According to self-determination theory (Noels et al., 2000), both extrinsic motivation and intrinsic motivation lie along a continuum of self-determination, with extrinsic motivation much more easily promoted than intrinsic motivation. Students can be move along this continuum to become more intrinsically motivated if they are properly guided towards self-regulation and effective strategy use (Banisaeid & Huang, 2015).

5.3 Macao tertiary students' strategy use when learning English

Tertiary EFL students in Macao use strategies that belong to a variety of strategy categories, including memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies and social strategies, but their choice of strategies within each strategy category are narrow. Moreover, the study results show that some strategies, such as social strategies and metacognitive strategies, are used subconsciously due to their lack of awareness of the strategy categories, or probably due to those habitually used strategies being transformed into automatic strategies (Cohen, 2007; Griffiths, 2013; Oxford, 2011). The strategies most commonly used by the students are discussed in sequence below.

5.3.1 Memory strategies

Following Oxford (1990), memory strategies include creating mental linkages, applying images and sounds, reviewing well and employing action. The analysis of participant responses to the items in the 'memory strategies' section of the SILL show that Macao tertiary students make very limited choices from the memory strategies category. The common memory strategy used is memorising English vocabulary. They also pay attention to English words that rhyme, which is the strategy to be taught and recommended by their English teachers

More surprisingly, when talking in the interviews about their use of memory strategies, many Macao tertiary students mentioned that they used rote-learning very often. They also said that they were spoon-fed many grammatical rules and a great number of vocabulary meanings. They were asked to rote memorise these without using them in any real way, which, as stated in the interviews, was a very poor learning experience for them.

The prevalent use of rote-learning when learning English is not restricted to tertiary students in Macao; it is also found among students from other Chinese-speaking regions (Li, 2005; Naveh, Kafipour & Soltani, 2011; Westwood, 2004). This is because memorising information is regarded as a necessary and effective way of mastering subject matter in Chinese culture (Thomas & Reinders, 2015; Watkins & Biggs, 2001), and so it is an accepted approach by students, teachers and school authorities in Chinese districts. This interesting relation between students' customary use of rote learning and the surrounding learning culture implies that what Chinese people understand by the word 'learning' is the ability to memorise as much as possible, without taking into account the practical, or even creative, application of what has been learned. This habitual understanding of what learning is lies behind the misconception among tertiary students, not only in Macao but also in other Asian countries, that the term 'memory strategies' refers mainly to the rote learning of vocabulary (Xing, 2009; Rochecouste et al., 2012). The use of memory strategies or even rote-memorising may not be completely unhelpful because there are advantages to memorising some fixed phrases, collocation or idiomatic expressions. As discussed in Chapter 2, memorising vocabulary and grammar to do well on a language test is a most laudable overall skill, but overreliance on this skill will result in negative learning outcomes (Oxford, 2011).

Macao tertiary students' problematic use of memory strategies may not be attributable to the memory strategy category itself but to overreliance on rote-memorising or verbatim-memorising of decontextualised words, as discussed in Section 5.2.2. In addition, Macao tertiary students' limited view of what constitutes memory strategies, to a certain extent, appears to have been gained in their secondary English classrooms because this view was not corrected by the teachers or, more seriously, the teachers

may even share this misconception (Watkins & Biggs, 2001). Once they reach university, Macao tertiary students may begin to feel that rote-memorisation is ineffective in the tertiary environment in the context of communication-focused assessment criteria. This result implies that teaching and assessment methods have a potentially substantial impact on students' use of strategies for learning English. To offset the salient result of the limited use of memory strategies among the Macao tertiary students, that is, the students often using rhymes to remember new English words, a larger repertoire of language learning strategies can be taught or encouraged in language classrooms, while at the same time, helping students understand how best to apply those strategies.

5.3.2 Cognitive strategies

Cognitive strategies, as outlined in Oxford (1990), include practising, receiving and sending messages, analysing and reasoning, and creating structure for input and output. The analysis of participant responses to the items in the 'cognitive strategies' section of the SILL show that Macao tertiary students do use some cognitive strategies to learn English but again their choices from this strategy category are very narrow. The cognitive strategy most commonly used by the students is to learn English by means of audio-visual media. The students report that they use this strategy because they want to imitate the speech of English speakers.

However, very few students choose to start a conversation in English, to read for pleasure in English or to write notes, letters, or reports in English, even though in the interviews, the students mention writing and saying new words repeatedly in order to memorise them better. This learning phenomenon shows that Macao tertiary students

may concentrate very much on those cognitive strategies that help develop their listening skills and their vocabulary learning.

Macao tertiary students probably feel more familiar with cognitive strategies because these strategies are often employed and recommended in English classrooms at secondary school, and they are more direct and convenient to adopt, which supports what has been found in previous studies (Li & Chun, 2012; Piper, 2001; Politzer & McGroarty, 1985). These studies report the time-consuming and easily-managed features of cognitive strategies, for example, the pattern of repetition-practice-memorisation, have become the prevalent English learning strategy used in Asian EFL classrooms. Moreover, the golden rule of "listen more and speak more" for improving English makes the students think that English oral communication is far more important than other skills. As discussed in Section 5.2.4, because of their low confidence, Macao tertiary students tend to favour more listening practice, through the use of audio-visual media, and vocabulary practice.

The use of strategies in the cognitive strategy category among Macao tertiary students seems to be limited to audio-visual practice, which, because of its nature, would be better grouped into the listening strategies category. However, if the focus of learning strategies practice is on repetition and memorisation, which is the focus of students in Macao, even audio-visual practice can be categorised in the cognitive strategy category (Oxford, 1990), which in fact reflects the practice of strategy clustering (Cohen, 2007, 2010). In the application of a strategy cluster, students practise using strategies from one strategy category, the use of which might have already shifted these strategies to other categories as part of a strategy cluster. In other words, Macao tertiary students' use of audio-visual practice seems to be limited to the cognitive strategy category; however, it might have been integrated with the use of listening

strategies, or even metacognitive strategies, especially when the students consciously realise that they want to improve their English through audio-visual media.

Although attributed to Macao tertiary students' narrow choice of the strategy use, this 'integrated' use of strategies can be exploited in the English classroom in Macao. Tertiary students can be exposed to situations that require the integrated use of strategies as in the example mentioned above. This kind of integrated practice of strategy use in strategy clusters can be more naturally developed than the teaching of a single strategy in isolation.

5.3.3 Compensation strategies

Compensation strategies, as outlined in Oxford (1990), include guessing intelligently and overcoming limitations in speaking and writing. The analysis of participant responses to the items in the 'compensation strategies' section of the SILL show that compensation strategies are the strategies most frequently used by Macao tertiary students when learning English. These strategies include expressing themselves with gestures, guessing unfamiliar words, making words up when they do not know the right one, and using synonyms when they cannot think of the exact word. As reported by students in the interviews, compensation strategies such as these help to compensate for their limited range of vocabulary. Students also say that compensation strategies save them the time of looking up a word in the dictionary. Macao tertiary students' use of compensation strategies, to some extent, may show their reluctance to invest a great deal of effort in their learning of English.

In general, compensation strategies seem to be the most popular strategy choice among less successful students who, relatively, face more difficulties in EFL learning, and the frequent use of these strategies may compensate for their limited language

knowledge (Magno, 2010; Qingquan, Chatupote & Teo, 2008; Yang, 2007; Yuan, Liu & Zhang, 2004). However, in Macao, there are many tertiary students who choose to use synonyms if they cannot think of the exact word, which is a kind of compensation strategy that might be used more by successful students because they have a relatively larger range of vocabulary. This suggests that compensation strategies are not only used by unsuccessful students but also used by competent students (Oxford, 1996; Robertson & Nunn, 2006) because use of strategies from the compensation strategy category requires the students to apply strategic competence as well (Savignon, 2007) Nevertheless, there is a risk that Macao students rely too much on compensation strategies and regard them as 'panaceas' to compensate for their language weaknesses. They may even use compensation strategies to fill in time, as reported by the lecturers in the interviews. This may partially explain why Macao tertiary students choose relatively more compensation strategies than strategies from other categories.

Compensation strategies should not be downgraded so they are considered merely as first-aid devices to tackle the language knowledge gap, but instead, they help the students to express themselves in more creative ways, such as by using gestures or paraphrasing with synonyms. Based on the preference for using compensation strategies among Macao tertiary students, this strategy category can be exploited more in the English classroom, providing students with learning situations where compensation strategies can be used, or, more ideally, can be integrated with the use of other learning strategies.

5.3.4 Metacognitive strategies

Metacognitive strategies, in the framework developed by Oxford (1990), include centring students' learning, arranging and planning students' learning, and evaluating

students' learning. In her latest version of the framework Oxford (2011) further expands the category of metacognitive strategies, highlighting the necessity for this category to cover the affective dimension and the sociocultural-interactive dimension as well. The analysis of participant responses to the items in the 'metacognitive strategies' section of the SILL show that, while Macao tertiary students use metacognitive strategies when learning English, their choices from within this category of strategies are also narrow. More saliently, this use includes trying to find as many ways as they can to use English, trying to find out how to be a better learner of English and paying attention when someone is speaking English.

Student responses to the SILL section of the questionnaire and during the interviews show that Macao tertiary students are not proactive enough in using metacognitive strategies. They tend to expect English learning opportunities to come to them rather than seeking them out actively. In addition, Macao tertiary students are not good at planning their study timeline, nor at looking for any opportunity to read in English.

In the interviews, some lecturers observed that the tertiary students did use the metacognitive strategies but the students do not know they are actually metacognitive strategies. In other words, Macao tertiary students use metacognitive strategies without having being taught them and without knowing that these were identifiable strategies. According to Cohen (2012, p. 137), strategies that are used without conscious awareness can be understood simply as "processes", which implies that Macao tertiary students may not be metacognitive learners. As shown in Section 5.3.2, the cognitive strategies used by tertiary students in Macao are very limited, yet cognitive strategies are, most of the time, the foundational skills for becoming metacognitive or self-regulated learners (Oxford, 1990, 2011; Li & Chun, 2012). In other words, metacognitive strategies are usually employed by successful learners

who understand how to learn using cognitive skills, and more importantly these learners usually have intrinsic learning goals for learning a language. Thus, Macao students' narrow use of cognitive strategies, to a certain extent, may predict their restricted use, or even their ignorance of metacognitive strategies, and their lack of intrinsic motivation to learn English.

The less frequent use of metacognitive strategies among less successful students in this study was in line with the findings of some previous studies (Jozsá & Molnár, 2013; Mori, 2008). For example, Jozsá and Molnár (2013) report that there are very strong correlations between the use of metacognitive strategies and the learners' language learning goals, and between the use of metacognitive strategies and the learners' self-confidence in learning English. Students who set a self-regulated learning goal for themselves, as well as those who believe that they have the capacity to learn, would adopt metacognitive strategies more frequently, and vice versa. As discussed in Section 5.2.1, Macao tertiary students are very instrumentally motivated to learn English. This type of motivation is likely to make them less willing to employ metacognitive strategies that require learners to set goals in advance and to manage their learning of English for the long-term, and so metacognitive strategies, especially those involving long-term planning, are not significantly prevalent among Macao tertiary students or they are simply learning "processes".

Metacognitive strategies, which manage cognitive aspects of L2 learning, are used by L2 learners at all levels of proficiency (Oxford, 2011). It is important for teachers to understand that beginning students or weak students can also use metacognitive strategies (Porte, 1988; Takač, 2008). However, weaker students may not apply metacognitive strategies as well as successful students who can manage their metacognition better. Pedagogically, teachers may need to consider the sequence and

balance of fostering these two types of strategies in classroom. It may be too demanding or difficult to expect unsuccessful students to apply metacognitive strategies skillfully in learning English.

5.3.5 Social strategies and affective strategies

Social strategies, as described by Oxford (1990), include asking questions, cooperating with others and emphathising with others; affective strategies, on the other hand, according to Oxford (1990), include lowering learning anxiety, encouraging and relieving learning stress. The analysis of participant responses to the items in the 'social strategies' and 'affective strategies' sections of the SILL show that Macao tertiary students seem to use some social strategies and affective strategies when learning English. The most salient social strategy used is to ask the other person to slow down or to repeat if they do not understand something in English while the most salient affective strategy used by the students is to relax when they feel afraid of using English. This study found that the use of these two strategies among Macao tertiary students is very limited but they are interrelated.

As discussed in the previous sections, tertiary students in Macao have low self-confidence and are shy. They are unwilling to speak up in English. Their unwillingness to communicate in English appears, therefore, to be the main cause for their limited choices from the social strategies category. In comparison to previous studies of EFL tertiary students, in Taiwan (Yang, 1992) and in Korea (Park, 1995), as well as the ESL tertiary students in Horwitz (1987), this study shows that EFL tertiary students in Macao have less desire to communicate in English and at the same time are much more shy when expressing themselves in English. Hence, relatively, tertiary students in Macao use fewer social strategies to learn English. In their use of the social

strategies category, Macao tertiary students tend to ask people to slow down or repeat for clarification; however, this is only a social technique used for clarifying rather than for learning English or for communicating in English.

Furthermore, the limited use of affective strategies among Macao tertiary students seems to be related to their limited use of social strategies. The infrequent use of some of the social strategies (Items 96 and 94) suggests that Macao tertiary students tend to avoid exposing themselves to any language environment that will make them feel uncomfortable or unsafe. This might include environments in which they would have opportunities to apply social strategies, for example, practising English with other students or asking questions in English. In other words, Macao tertiary students tend to expose themselves in a safer language context (see Section 5.2.2) where affective strategies may not be so necessary.

More importantly, neither affective strategies nor social strategies are widely promoted in Macao secondary school English classrooms, compared with cognitive strategies and memory strategies. Thus, Macao tertiary students are not familiar with affective or social strategies because they have little experience of using them, which further implies that language learning strategies should be taught or demonstrated, explicitly, by English teachers at secondary school (Griffiths, 2008; Oxford, 1996). At university, students have comparatively more interactive opportunities, in classrooms and on campus, as long as university authorities and the lecturer provide students with enough support.

5.3.6 Macao tertiary students' strategy use when learning English: Insights

Macao tertiary students use a variety of strategies from each strategy category

including the memory strategy category, cognitive strategy category, compensation strategy category, metacognitive strategy category, social strategy category and affective strategy category. However, their strategy choice within each category is very limited.

The analysis in this study indicates that only a minority of Macao tertiary students reviews their lessons often, reads for pleasure in English or writes notes, letters, or reports in English. These results show that Macao tertiary students do not pay great attention to practising English reading and writing skills, nor do they understand the importance of doing revision after learning some new knowledge about language. This might be the cause of Macao students' unsatisfactory English language learning results (see Section 1.2.6) because the most common English assessment in schools and universities is based on written examinations, which include both reading comprehension and essay writing.

The six categories of language learning strategies used in this study are based on Oxford's (1990) inventory. This inventory has been demonstrated to be robust in this study because it covers the main strategy categories used by Macao tertiary students. In this study, many tertiary students mentioned the use of rote-learning in memorising new words but this strategy is not included in Oxford's (1990) inventory, probably because it is not regarded as a formal strategy; however, that this learning preference is excluded from the inventory may influence the correlational results in this study, which range from weak to modest. Oxford (2011) admits that the metacognitive strategies in the old taxonomy only describe control over the use of cognitive strategies but ignore the affective dimension and the social dimension (p.17). Oxford (2011), therefore, re-categorises language learning strategies into three categories: (1) cognitive strategies, (2) affective strategies and (3) sociocultural-interactive strategies.

Although this study cannot benefit from Oxford's new taxonomy, it can reasonably infer that students' strategy use in language learning is related to psychological and sociocultural factors. The study results may have been quite different if Oxford's (2011) new taxonomy framework were adopted.

Macao students' positive desire to learn English cannot be achieved well probably due to their limited awareness of language learning strategies (Magno, 2010; Qingquan, Chatupote & Teo, 2008). For example, their reported use of memory strategies is restricted to rote-memorisation and memorising rhymes of new words. The former choice shows their unawareness and misunderstanding of memory strategies (Watkins & Biggs, 2001) because for a majority of Macao students, a memory strategy refers mainly to rote-memorisation, excluding other effective mnemonics. Reassuringly, the latter choice has reportedly been taught and encouraged by teachers, but despite this, the use of memory strategies in Macao students' language learning has not been extended beyond rote-memorisation.

Likewise, the frequent use of cognitive strategies among the sample students was based on their previous school experience but this is limited to focused training on listening skills and vocabulary learning skills, indicating that students lack awareness of cognitive strategies. However, while limited in range, the frequent use of these skills may reflect students' attempts to deploy strategy clusters (Cohen, 2007). For example, audio-visual cognitive learning practice, such as watching English TV programs at home, as mentioned in Chapter 4, actually involves some kind of listening strategy (i.e. listening to a native speaker) and metacognitive strategy (i.e. planning and organising learning). Although these clustered strategies were not reported to be consciously used, so cannot be regarded as learning *habits* (Oxford, 2011) or learning *processes* (Cohen, 1998, 2012; Griffiths, 2008), they can shed some light on Macao students' capacity for

strategic language learning. This initial strategy-like learning process helps promote self-regulation (Dembo & Seli, 2013) and can become the foundation on which a wider range of learning strategies can be built in future through effective strategy instruction (Cohen, 2014; Greenfell & Macaro, 2007; Zhang, 2008).

The use of metacognitive strategies seems to be favoured by successful language learners (Liu & Li, 2015; Oxford, 2011), but lecturers observed some unconscious use of metacognitive strategies by the sample students, including planning and evaluating their own learning. This phenomenon can be explained by cognitive information-processing theory (Oxford, 2011), which models the transition from declarative knowledge (conscious and effortful) to procedural knowledge (unconscious and automatic) during the language learning process. Students consciously learn new knowledge at the first stage and then apply the new knowledge unconsciously after a lot of practice at the second stage. When students do not keep up frequent practice and application, they may go back to the declarative knowledge stage again. In this study, the unconscious use of metacognitive strategies may have occurred among students at the procedural knowledge learning stage. Therefore, it cannot be definitely concluded that metacognitive strategies are used by successful learners only, even though it is reasonable to assume this. According to Liu and Li (2015), language learners can be trained to use metacognitive strategies regardless of their proficiency levels because less successful learners can also employ metacognitive strategies, but may use them imperfectly.

In addition, the findings of this study show that Macao tertiary students may not employ affective strategies and social strategies well. This to a large extent reveals Macao students' and even teachers' ignorance of the influential role played by friendliness and social-cooperation in language learning (Oxford, 2011). This ignorance is indeed

common in other Asian contexts due to the traditional learning context and culture. Both social strategies and affective strategies may not directly improve students' English knowledge, but they help motivate students internally and externally to learning English. Students' affect has a strong influence on L2 learning motivation while learning motivation helps students to persist with self-regulatory learning for the long term. Thus, the infrequent use of affective strategies by Macao tertiary students reflects their short term or instrumental motivation in learning English. In relation to social strategies, students must realise that language learning involves not only semantic meaning but also pragmatic meaning. Thus, overcoming knowledge barriers when communicating by means of social strategies is not just a matter of language use but is a crucial part of L2 learning. According to Oxford (2011), learners interact within a specific sociocultural context and consider the nature of the opportunities to practise the L2 in the given context. However, Macao students may not sense the need to employ social strategies to learn English in Macao, or worse, they are unaware of most social strategies for learning English.

The results of the current study imply that strategic language learning would help Macao tertiary students improve their English language learning outcomes. The students participating in this study reported that they employed a lot of surface learning approaches, especially rote-learning. This might be caused by the examination-oriented approach to assessment in Macao (see Section 1.2.5). This assessment policy also appears to have influenced many instrumentally motivated students who only use those strategies that they perceive will help them to pass examinations, to achieve good grades and to find good employment. As a result their use of language learning strategies is narrow, as discussed in Sections 5.3.1 to 5.3.5 above.

The fact that Macao tertiary students tend only to use surface learning approaches and a

limited repertoire of language learning strategies contributes to their unsatisfactory language learning outcomes, in terms of both the general university entry requirements as measured by IELTS scores (Section 1.2.6), and their English performance in comparison to their counterparts in other east Asian countries such as Taiwan and Korea (see Section 5.3.5). The results of this study align with what has been revealed by applying the 3P model in this study (see Section 2.4), indicating that surface learning approaches lead to unsatisfactory learning outcomes. In other words, if Macao tertiary students are to achieve satisfactory language learning outcomes, they need to become deeper and more self-regulated learners, more capable of employing optimal strategies for handling language learning tasks (Biggs, 1993; Oxford, 2011). For these reasons, learning how to be strategic language learners would be beneficial for tertiary students in Macao.

This section discusses the current state of Macao tertiary students' strategy use. Although they reported use of some learning strategies, this use was not extensive due mostly to their language learning experiences and contexts, and their lack of awareness of language learning strategies.

5.4 The relations between Macao tertiary-level EFL students' beliefs about English learning and the strategies they use to learn English

The previous two sections have discussed Macao tertiary students' beliefs about English learning, and strategies they use to learn English. This section discusses the relations between the students' beliefs and strategy use. As mentioned in Section 4.5.3, the first round of correlational figures were unable to show a clear-cut meaning for

some relations, and so a second round of correlation was conducted. This study has summarised seven salient correlational results of the two rounds of analysis and these are discussed in this section.

The seven salient correlational results were identified after the two rounds of Pearson correlation analysis. The first round of Pearson correlation analysis is based on the results of the factor analysis, which generated clusters of factors labelled by the researcher. However, it was found difficult to summarise the common characteristics among the items because they were sometimes diversified, resulting in some unrelated items being included within the same composite factor making it difficult to label the factor effectively; in other words, the correlational results would probably be unreliable. Because of this labelling problem, the second round of factor analysis is designed on the basis of the original inventories of SILL and BALLI to offset the labeling problem and so the correlational results of the second round of analysis are more reliable and, therefore, the seven salient correlational results are derived from Round 2.

The results of the second round of Pearson correlation analysis show weak to modest correlations between the students' beliefs and strategy use. Although the correlations are not significantly strong, some correlational results are comparatively higher, while some correlational results are nearly close to zero. Seven correlational results are identified as the most salient results to be discussed in this section.

5.4.1 Beliefs about the difficulty of language learning and cognitive and metacognitive strategies

This section discusses the relations between beliefs about the difficulty of language leaning and cognitive strategies, and metacognitive strategies.

Cognition involves mental steps used to solve problems during the learning process, while metacognition refers to language learners' ability to think about how they engage in this learning process (Oxford, 2011; Zhang, Goh, & Kunnan, 2014). In other words, if Macao tertiary students cannot manage their use of cognitive strategies effectively when learning English, it will be hard for them to make better use of metacognitive strategies, which are strategies used to control or manage the use of cognitive strategies

Macao tertiary students who believe that learning an additional language is difficult tend to employ more cognitive strategies (r=.334) and metacognitive strategies (r=.384) in learning English. Students are familiar with the correlation between believing that learning an additional language is difficult and their choice of cognitive strategies. According to the students in the interviews, cognitive strategies are modelled and used in primary school and in secondary school, but the use of this type of strategy was very limited among Macao tertiary students, which raises a caution about the degree of the students' awareness of cognitive strategy use when they learn English. Nevertheless, this group of students needs to develop an improved learning attitude and at the same time must be encouraged continuously as they are normally the less successful students. The relation between believing that learning an additional language is difficult and the use of strategies from the metacognitive strategies category depends on how self-regulated and capable the Macao tertiary students are. If their ability to self-regulate is strong, they use more metacognitive strategies to improve their English even though they believe that learning English is a difficult task.

Students who believe that learning an additional language is difficult normally have less confidence in their ability to learn English and are less successful English

learners who have stereotyped themselves as "bad English learners". These students can be expected to use fewer or even no metacognitive strategies (Breen, 2014; Oxford, 1996). However, this study shows that this group of students is likely to use both cognitive strategies and metacognitive strategies, which seems to conflict with the typical mental development from cognition to metacognition. In fact, Macao tertiary students who believe that learning an additional language is difficult may not necessarily be unsuccessful students. They can learn English well as long as they have a positive learning attitude and motivation.

Hence, while promoting the use of cognitive and metacognitive strategies in the classroom, it is necessary to be cautious and to consider the students' language ability. It will be too demanding for low-achieving students to employ the metacognitive strategies even though they have been shown to be effective among the successful students of English.

5.4.2 Beliefs about the difficulty of language learning and the use of compensation strategies

The second relation between the language learning beliefs of Macao tertiary students and their language learning strategies found in the second round of correlation analysis is the relation between their beliefs about the difficulty of language learning and their use of compensation strategies, that is, strategies include guessing intelligently and overcoming limitations in speaking and writing.

Macao tertiary students who believe that learning an additional language is difficult are likely to use compensation strategies. Traditional examination-oriented teaching provides very few opportunities for the daily use of English in the classroom, especially authentic communication, which makes students in Macao become timid and

have less confidence to express themselves, when an opportunity to speak English emerges, particularly those who regard learning English as a difficult task. This relation is very obvious among first year tertiary students in Macao due to the transition from the secondary school to the university study environment. In their secondary school, assessment is very examination-oriented especially the written examination, while in the university, the assessment focuses more on how they use English as a communication tool. Hence, first year Macao tertiary students are a group who feel particularly strongly that learning English is difficult and, therefore, they are likely to use compensation strategies.

Not only Macao students, but Asian background students in general, have been found to use more compensation strategies than students learning English from non-Asian backgrounds when learning English (Grainger, 1997), to a large extent, because Asian background students have to adapt to the transitional period from the use of their first language to the use of English both in the English classroom and even in other English-speaking contexts, for example, lectures and workshops delivered in English. This is one reason why Asian background students are relatively timid and have less confidence, a claim supported by the findings of Yang (1992), Park (1995) and Grainger (2012). Macao tertiary students, however, are particularly timid when using English, even when compared with their counterparts in Taiwan and Korea. In response to one of the BALLI items "I feel timid speaking English with other people", 39% of the Taiwan tertiary students and 41% of the Korea tertiary students responded positively, while around 52% of the Macao tertiary students made the same response. This provides an indication of why Macao tertiary students feel the necessity for using compensation strategies, especially the less successful tertiary students in Macao.

Apart from the transitional adaption from their first language to English, the target language to be learnt, the need to adapt to the transition from the secondary school context to the university context is also a crucial reason for Macao tertiary students using more compensation strategies. This phenomenon is consistent with the findings of a study by Ananisarab and Abdi (2012) which shows that learners in university contexts use more compensation strategies than learners in pre-university contexts because teachers in university contexts help the students to use language communicatively, but teachers in pre-university contexts may only help their students master a few grammatical points and vocabulary items and to understand set reading passages.

The relation between Macao tertiary students' beliefs about the difficulty of learning an additional language and the compensation strategies they use when learning English, as discussed in this subsection, demonstrates not simply the strategy preference among the Macao tertiary students but also reveals these students' vulnerability when dealing with a new language learning environment. Meanwhile, it also implies the English teaching gap between the school and the university contexts.

5.4.3 Beliefs about the nature of language learning and the use of affective and social strategies

The third relation between the language learning beliefs of Macao tertiary students and their language learning strategies found in the second round of correlation analysis is the relation between their beliefs about the nature of language learning and their use of affective strategies, that include lowering learning anxiety, encouraging and relieving learning stress, social strategies, that is, strategies that include asking questions, cooperating with others and empathising with others.

Macao tertiary students whose beliefs about the nature of language learning tend to use fewer affective strategies (r=.057) and social strategies (r=.075). The students in the interviews explain that Macao tertiary students become passive and shy when learning English. They seem to be unaware of and have very few opportunities to make use of affective strategies and social strategies. This is in addition to preconceived beliefs held by Macao tertiary students, beliefs formed earlier during their school years, for example, that English learning should be vocabulary-oriented, and learning English in a non English-speaking region such as Macao makes it hard to improve English proficiency. With this cluster of beliefs, Macao tertiary students have the tendency to lose their initiative in using affective strategies.

The relation between Macao tertiary students' belief about the nature of language learning and their low use of affective and social strategies provides us with food for thought about *What is English learning?* And *What type of English learners we want our students to be?* Previous studies report that teachers' beliefs (Davis, 2003; Kern, 1995; Liao, 2007) play a very crucial role in shaping students' beliefs about learning English. For instance, if teachers believe that a vocabulary-oriented teaching approach is helpful to students, their English teaching and classroom activities will be very vocabulary-oriented. In this classroom environment students will come to believe that practising pronunciation and memorising the meanings of new words are definitely important in the development of the four English skills: listening, speaking, reading and writing. In contrast, if students are frequently told that English is a helpful tool for communicating with foreigners, students will make English speaking and listening skills their learning priority, and they will then employ more social strategies. From this perspective, Macao tertiary students' beliefs to a large extent appear to come from both their pre-university or university English teachers. The relation discussed in this

subsection is apparently a reflection of the fact that in Macao learning English is thought to be a knowledge-memorising process, especially the memorising of vocabulary, while students in Macao are seen as receivers of knowledge. This mechanical approach to learning does not favour the use of either affective strategies or social strategies.

More importantly, it has been demonstrated that effective learners of English with intrinsic learning motivation are able to regulate their own learning (Griffiths & Oxford, 2014; Oxford, 2011). However, self-regulation involves not only students' managing their cognitive skills but also regulating their affective states and social environment (Alexander, Graham, & Harris, 1998). In other words, if Macao tertiary students are to become successful autonomous English learners, fostering the use of affective and strategies in English language classrooms in Macao is significantly important, as will be discussed further in the section below on the pedagogical implications of the study.

5.4.4 Beliefs about the 'long term' confidence in language learning and the use of affective strategies and social strategies

The fourth relation between the language learning beliefs of Macao tertiary students and their language learning strategies found in the second round of correlation analysis is the relation between their beliefs relating to motivation related to 'long term' confidence in language learning and their use of affective and social strategies.

Macao tertiary students who believe that they will learn English effectively in the long term, that is, Macao tertiary students who have 'long-term' confidence that they will learn English, are likely to use affective strategies (r=2.42) and social strategies (r=2.61). Macao tertiary students are not confident about their current English

proficiency; instead, they are confident about learning English well in the long term. According to the questionnaire survey, 79.5% of the students believe that they could learn English well within five years. It appears that the students who are currently less successful English learners with less confidence still believe that they can learn English well in the future, probably in five year time. During this long learning period, however, affective strategies which help to tackle learning anxiety are shown to be necessary.

At the same time, the use of social strategies, according to the lecturers, depends very much on students' personalities rather than on whether the students have confidence or not. With regard to the use of social strategies among Macao tertiary students, in the interviews, both students and lecturers provided different opinions. The students believe that they will use more social strategies if they are confident, while the lecturers tend to support the idea that the use of social strategies is related to learners' personalities. Generally, self-confident students with extroverted personalities are commonly believed to be the best English learners (Griffiths, 2014), because they are believed to be more self-regulated and use more strategies for self-regulation, including metacognitive strategies, affective strategies and social strategies as mentioned above. This claim supports the opinion of Macao tertiary students about the relation between beliefs related to self-confidence and the use of social strategies. Moreover, contrary to what was expected by the lecturers, English learners with introverted personalities have been found to be significantly over represented among the top English learners (Ehrman, 2008).

Nevertheless, the lecturers' concern may not be completely wrong because in real language classrooms, some Macao tertiary students, who are effective and confident learners, use very few social strategies, or are even unwilling to use them. This

interesting phenomenon has been linked to students' cultural background by Wang, Schwab, Fenn, and Chang (2013), who found that Asian students in general have less self-confidence than their western counterparts, and so students in the west tend to employ more strategies for self-regulation, including social strategies, when learning English than Asian students do. Wang et al. attribute this result to cultural differences in students' understanding of 'self-confidence'. Due to the collective culture typical of Asian societies, Asian students tend to believe that self-confidence involves students' hard work and effort, while students from western cultures tend to believe that self-confidence is based on personal ability. The study by Wang et al. (2013) helps explain why some social strategies are used less frequently by Asian tertiary students (Park, 1995; Yang, 1992), including the Macao tertiary students in this study.

Macao tertiary students who have 'long-term' confidence most likely tend to use more affective and social strategies because the use of these strategies, together with the use of metacognitive strategies, is closely tied to student motivation (Alatis, 1996). This group of students, therefore, has control over their own learning and can choose to be successful through their own effort. Therefore, Macao tertiary students who have 'long-term' confidence will not give up so easily when they come across learning difficulties because of this long-term confidence belief and motivation. The strategy choice among this group of students will be further discussed in the pedagogical implications.

5.4.5 Beliefs about learning and communication strategies and the use of memory strategies

The fifth relation between the language learning beliefs of Macao tertiary students and their language learning strategies found in the second round of correlation analysis is

the relation between their beliefs relating to language and communication strategies and their use of memory strategies.

Macao tertiary students who believe in the effectiveness of learning and communication strategies are unlikely to use memory strategies (r=.087), a belief that is supported by both students and lecturers. According to the students, this group of students tends to believe that communicating in English within an authentic context is more effective than purely memorising.

According to the lecturers, Macao tertiary students who believe in the effectiveness of learning and communication strategies will make use of many English communicative opportunities, and so this group may belong to the group of outgoing students who tend not to favour learning through memory strategies.

More importantly, Macao tertiary students who believe in the effectiveness of learning and communication strategies tend to focus more on English fluency rather than on English accuracy. Thus, both students and lecturers agree with this relation.

During the interview phase of the study, Macao tertiary students reported that during their secondary school years they became used to traditional English classrooms, where they have to memorise many grammatical rules and word meanings. When they enter the university, they feel that rote-memory strategies are no longer helpful, and seem to show less interest in using memory strategies, but emphasise English communication more. In contrast, however, their questionnaire responses in relation to their beliefs about learning and communication strategies do not show exactly this same belief. These responses show that the students are still concerned about their accuracy in pronunciation and memorisation through repeated conversation practice, which may indeed hinder their English fluency in a conversation (Alam, 2015).

The relation between Macao tertiary students' belief in the effectiveness of learning and communication, and their use of memory strategies, shows a complete contrast between English communication strategies that favour fluency in English conversation, and memorisation strategies which emphasise the fluency in an English classroom. Nowadays, tertiary English classrooms in Macao tend to be shifting from the test-oriented approach, which requires a lot of memorisation, to a communicative teaching approach, with more focus on fostering students' communication strategies and fluency. However, it is possible to argue that the use of these two contrasting types of strategies ought not to be separated so completely, as it would be more helpful to students and teachers to find a balance between them.

The relation between the belief in the effectiveness of communication and the use of memory strategies gives insight to the English teaching and learning in Macao, which will be further discussed in the pedagogical implications section.

5.4.6 Beliefs relating to motivation for language learning and the use of affective strategies

The sixth relation between the language learning beliefs of Macao tertiary students and their language learning strategies found in the second round of correlation analysis is the relation between their beliefs about motivation for language learning and their use of affective strategies.

Macao tertiary students whose beliefs motivate them to learn English use fewer affective strategies (r=.080). This may be because this group of students has prepared themselves well, with strong desire or interest, to learn this language.

The learning attitude of students of this type is relatively more positive than their non-motivated counterparts, and so these students use affective strategies less frequently.

In general, motivated students are regarded as those who have fewer opportunities to be exposed to any anxiety or frustration when learning English, and so they use affective strategies less frequently. This depends very much, however, on whether they are intrinsically or extrinsically motivated, and whether they are effective or poor English learners. Effective and motivated English learners, whether they are extrinsically or intrinsically motivated, will certainly use fewer affective strategies. Poor English learners, with extrinsic motivation only, will use fewer affective strategies, or mostly they are the non-strategic learners because they do not tend to manage their language learning very well. More differently, poor English learners who are intrinsically motivated may need to use affective strategies when learning anxiety emerges in order to relax and to continue their English learning successfully. This study does not tend to restrict the use of affective strategies to the less successful learners because high motivation may prompt a good learner to use affective strategies successfully. It depends on how a given learner operationalises them in any given situation.

5.4.7 Beliefs relating to motivation for language learning and the use of metacognitive strategies

The seventh relation between the language learning beliefs of Macao tertiary students and their language learning strategies found in the second round of correlation analysis is the relation between their beliefs relating to motivation for language learning and their use of metacognitive strategies.

Macao tertiary students who are motivated to learn English tend to use metacognitive strategies (r=.260), but this relation relies very much on students' interest and ability. This correlation aligns with previous studies (Hartman, 2002; Winne & Hadwin, 2008; Wolters, 1999b; Zimmerman & Moylan, 2009) which all report that metacognitive activities are generally understood as core features of what it means to be a self-regulated and motivated learner.

For Macao tertiary students, however, there seem to be more practical purposes behind their motivation to learn English. In this study, a majority of the first year students wanted to learn English for the purposes of employment or study. Because of this instrumental learning goal, Macao tertiary students' choices of metacognitive strategies are narrow, the focus mainly on some non-proactive measures within the metacognitive strategy category, for managing their English learning rather than on any planning tactics. This relation is consistent with Chang (2005) who found that more motivated students used more metacognitive learning strategies, and that both extrinsically and intrinsically motivated students tend to use metacognitive strategies for evaluating and planning more than other metacognitive strategies. However, metacognitive strategies can be used by both beginning students and weak students, although these students they may not use them as effectively as successful and more advanced learners (Porte, 1988; Takac, 2008). This relation will be discussed in the pedagogical implications section.

5.4.8 The relations between Macao tertiary-level students' beliefs about English learning and the strategies they use to learn English: Insights

In this study, the direct and reciprocal features of the relation between Macao tertiary students' learning beliefs and their strategy use when learning English are consistent with previous studies (Horwitz, 2008; Jones, Wilkins, Long & Wang, 2012; Park, 1995; Taguchi, Magid & Papi, 2009; Yang, 1992). Moreover, the seven correlations of this study reflect some even more intertwined and contradictory relations between Macao tertiary students' complex clustering of beliefs and their strategy choice. These complicated and contradictory relations, to a certain extent, are arguably caused by deficiencies in English education policy in Macao (Young, 2009, 2011) and the neglect of Macao students' English learning in primary and secondary schools (Lynch & Trujillo, 2011), not simply pedagogically but also psychologically. Furthermore, students' information-processing shown in the 3P model of language learning (Rao, 2012), as discussed in Section 2.4, demonstrated a direct and reciprocal relation between students' learning beliefs and their strategy use. Therefore, affective factors and sociocultural factors (Oxford, 2011) in students' strategic language learning ought not to be ignored.

In the next section, some implications of these relations will be provided for reflection on current English teaching in Macao, but the remainder of this section comprises a review of the main insights gained from the correlation analysis of Macao tertiary students' beliefs about language learning and their strategy use when learning English. The main insights gained from considering the seven relations discussed above include:

(1) The reciprocal relation between students' beliefs and strategy use can be used as a means of reviewing current English teaching in Macao

(2) Macao tertiary students' extrinsic motivation can be consciously fostered.

(3) The teaching of the integrated learning strategies is more effective than the teaching of a single one.

(4) The learning of affective strategies and social strategies are more spontaneously used from the environment.

(5) Compensation strategies can be helpful to both successful and less successful students but should not be overused.

5.5 Implications

The above discussion of the most salient of the study findings in relation to Macao tertiary students' beliefs about language learning, their strategy use when learning English and the relations between their language learning beliefs and strategy use can be reviewed in terms of the implications of the findings from the theoretical, methodological and pedagogical perspectives.

5.5.1 Theoretical implications

Theoretically, the study demonstrates that despite the BALLI (Horwitz, 1987) and SILL (Oxford, 1990) being designed some decades ago, they remain robust instruments for capturing language learners' beliefs about language learning and the strategies they use to learn a language, as largely confirmed by the responses to the open-ended questions appended to both inventories. Nevertheless, the findings from the study demonstrate that some aspects of these inventories could be enhanced. In consideration of impact of students' affective factor and sociocultural factor on

learning strategy use, Oxford (2011) enhances the effectiveness of the old taxonomy of language learning strategies from six categories (memory, cognitive, metacognitive, compensation, affective and social strategies) into four inclusive categories (metacognitive, affective, sociocultural strategies and the master category of metastrategies) because she recently understands metacognition in a different way. As she state:

> Unfortunately, prior taxonomies of strategies had no term to describe control of two other dimensions of L2 learning strategies: (a) affective dimension and (b) the social dimension. Hence, until now the term *metacognitive* was (confusingly, in my view) applied to the control of strategies in the affective and social realms, not just to the control of cognitive strategies (Oxford, 2011, p. 17).

The study has also contributed knowledge about the language learning beliefs and strategy use of a specific group of students, tertiary students in Macao, in relation to their educational and sociocultural context, while showing only a modest correlation between this group of students' beliefs about language learning and their language learning strategy use. Even though the study did not benefit from the use of the revised version of Oxford's (2011) framework, the results of the study resonate with Oxford's revised taxonomy in the sense that social and affective categories seem to be important to language learning. For instance, a reciprocal relation between the beliefs about language learning and their language learning strategy was found in this study with a lot of these beliefs being related to students' sociocultural background. In addition, the weak to modest relations between beliefs and strategy use were not expected by the researcher. If Oxford's (2011) new taxonomy had been used, the correlational results might be very different.

5.5.2 Methodological implications

Methodologically, the findings from the study suggest that the correlation of language learning beliefs and language learning strategies needs to be approached with caution, especially when the factors being correlated are composite ones. This issue was partially addressed by including a qualitative phase in the study reported in this thesis, but in future studies a more extensive statistical analysis would be required (See for example, Yang, 1992), targeting students of similar demographic profile or even those of different profiles. The weak correlation between Macao tertiary students' beliefs about language learning and the language learning strategies they use suggests that any barriers to students becoming strategic language learners because of their beliefs can be overcome through effective pedagogy.

5.5.3 Pedagogical implications

Pedagogically, the thesis demonstrates, on the basis of Biggs 3P model of language learning, the interrelations among the students' beliefs about language learning and the teaching and sociocultural influences at the presage stage, the first stage of the 3P model, students' limited choices of strategies at the process stage, the second stage of the 3P model, and Macao tertiary students' unsatisfactory English language outcomes, the product, or third stage, of the 3P model.

Macao tertiary students form a lot of their unhelpful preconceived beliefs at the primary school and secondary school under the influences of the traditional teaching approaches, the Chinese learning culture, exam-oriented assessment and teaching goals, which happens at the first stage of the 3P model, the presage stage.

Then Macao tertiary students make their decisions about choosing their own learning strategies such as the deep approach or the surface approach according to their

attitudes, motivation and interest in relation to learning English. These two main learning approaches lead them to the selection of relevant strategies in learning English which Macao tertiary students think are useful. This is the second stage of the 3 P model, the process stage.

Finally, Macao tertiary students' English language learning outcomes appear at the last stage of the 3P model, the product stage. Whether Macao tertiary students' leaning outcomes are effective or poor (see Section 1.2.6), these outcomes are built on their preconceived beliefs as well as on their strategy use (see Section 1.2.5 and Section 2.4), and these are interrelated. In other words, if Macao tertiary students are expected to have satisfactory English language learning outcomes, more can be done pedagogically about the students' learning beliefs and attitudes, as well as their use of language learning strategies.

This section has reviewed the implications of this study in terms of the theoretical implications, the methodological implications and the pedagogical implications, based on the 3P model.

5.6 Summary of the chapter

Chapter Five has discussed the language learning beliefs held by Macao tertiary students, the language learning strategies they use to learn English, and the relations between these beliefs and the students strategy use when learning English. This discussion is based on the findings from the analysis of student responses to three sections of the questionnaire and the follow-up interviews of selected students and their lecturers. This chapter has also considered the theoretical, methodological and pedagogical implications of the study, for English education in Macao. An overall conclusion and final recommendations will be made in the next chapter, Chapter Six.

Chapter Six

6 Conclusion

The study on which this thesis is based has been conducted to build knowledge, primarily, to improve English learning in Macao tertiary contexts. In addition, the research findings have implications for English teaching in Macao tertiary contexts. The study aims to contribute to the promotion of Macao tertiary students' learning autonomy and to enhancing their English proficiency, by exploring their beliefs about learning English, their strategy use in learning English, and the relations between these.

6.1 Summary of the study

This study is based on evidence in the literature of the important roles students' beliefs and strategies play in learning a language. A variety of definitions, as well as taxonomies, have been developed to contribute to a better understanding of these two concepts, and, of these, the belief taxonomy designed by Horwitz (1987) and the strategy taxonomy designed by Oxford (1990) have been adopted for this study. Moreover, the three stages of 3P theory model of language learning (Biggs' 1993), presage-process-product, have been used to conceptualise the relation between students' beliefs and strategy use over the trajectory of their English learning. For the purpose of this study, the frameworks of Oxford, Horwitz and Biggs have helped to investigate language learning beliefs, strategy use, and the relations between them.

This study adopted an explanatory mixed-method approach to investigate Macao tertiary students' beliefs about language learning, the strategies they choose in language

learning, and the relation between their beliefs and strategy use. A total of 346 first-year under graduates and five English lecturers participated in both the quantitative and the qualitative phases. In the quantitative phase, the questionnaire derived from the BALLI, the belief inventory designed by Horwitz (1987) and from the SILL, the strategy inventory designed by Oxford (1990) were used to investigate students' beliefs and strategy use in English learning, as well as the relations between these. In the qualitative phase, during interviews, a selection of both students and lecturers explained their response to the questionnaire. The quantitative data was statistically analysed, using descriptive analysis, factor analysis, and Pearson correlation analysis, while the qualitative data underwent thematic analysis.

It was found that tertiary students in Macao are generally extrinsically motivated and less strategic in learning English, with unsatisfactory English learning outcomes. They have many different beliefs about learning English under the influences of the examination-driven school environment, the boom in the economy, the English education system and the traditional Chinese learning culture. In addition, the 3P model theory, which emphasises the interrelation between students' beliefs, students' strategy use and students' learning outcome, has been used as part of the conceptual base for this study, which aimed to address the following three research questions:

1. What *beliefs* about English learning are commonly held by tertiary-level EFL students in Macao?

2. What English learning *strategies* are commonly used by tertiary-level EFL students in Macao?

3. What are the relations between Macao tertiary-level EFL students' *beliefs* about the learning of English, and the *strategies* they use to learn English?

While the study found that Macao tertiary students employ a variety of learning strategies, their strategy choice is very narrow and the frequency of use is not very high, as reviewed in more detail below.

For the memory strategy category, Macao tertiary students are keen on memorising new words by rhymes, syllables or morphemes because those are the strategies recommended by previous teachers.

For the cognitive strategy category, Macao tertiary students tend to practice their English through audio-visual media, such as watching television and going to movies, because in this way they can imitate and practise how the English speakers use English.

For the compensation strategy category, Macao tertiary students are likely to guess meanings that they do not understand, to use gestures or make up new words when they find it difficult to express themselves, and to use synonyms.

For the metacognitive strategy category, the students tend to pay attention when someone is speaking English, and to find ways to use English or to be a better English learner. However, their use of metacognitive strategies is not proactive enough and they are also weak in managing their own English study such as planning, evaluating and setting goals. When Macao tertiary students use metacognitive strategies, they usually do this subconsciously due to their lack of awareness of this strategy category.

For the affective strategy category Macao tertiary students are likely to try to relax when they are afraid of using English but they do not tend to disclose their learning anxiety in front of the others. For the social strategy category, Macao tertiary students tend to ask English speakers to slow down or repeat if they do not understand,

however, they are not likely to practice English with others or ask questions in English. Their choices from the affective strategy category and the social strategy category remain very limited.

Furthermore, this study has revealed a reciprocal relation between students' beliefs and strategy use in learning English, supported by both the correlation analysis and the follow-up interviews with the student and lecturer participants. The most salient are described include the following: Macao tertiary students who believe that learning an additional language is difficult tend to employ more cognitive, metacognitive strategies and compensation strategies. They tend to use cognitive strategies simply as a kind of cognition process. In addition, the use of metacognitive strategies among this cohort of students may depend on the students' attitude to learning English, their English learning level, and also on their metacognitive awareness. Moreover, the tendency to use compensation strategies among this cohort of students may be a consequence of their shortage of real practice. As mentioned in Section 1.2.5, teaching context can affect students' selection of a learning approach, and the prevalent teaching context in Macao is exam-focused (Morrison, 2002; Young, 2011). The exam-oriented language classroom provides very little communicative opportunity for Macao students and so lessens their confidence in real language use. Hence, compensation strategies become their first priority when entering into the university where communicative language skills are demanded, as discussed in Section 5.2.3 and Section 5.4.5.

Furthermore, Macao tertiary students who have beliefs in relation to the nature of language learning tend to use fewer affective strategies and social strategies. This group of students mostly hold beliefs that vocabulary learning and grammatical rules

are the most important aspects of learning English because of the influence of the traditional grammar-translation approach and their learning characteristics, and so they are not familiar with these two strategy categories, and do not want to use them.

Macao tertiary students who have 'long-term' confidence that they will learn English are likely to use affective strategies and social strategies. This cohort of students, who may not be good at English currently, have the desire and determination to learn English well, and so affective strategies are very necessary for them to tackle any learning problems during the learning process. However, the use of social strategies among this group of students depends very much on students' personalities or characters.

Macao tertiary students who believe in the effectiveness of learning and communication are unlikely to use memory strategies. This cohort of students is more willing to learn in an authentic context where language knowledge can be picked up more effectively and naturally. More importantly, this type of student tends to favour language fluency with smooth oral communication rather than accuracy, and so they are not as likely to use memory strategies. Macao tertiary students who are motivated to learn English use fewer affective strategies but at the same time they tend to use metacognitive strategies. This type of student is comparatively more capable in dealing with learning problems and affective strategies seem to be unnecessary for them. However, it also depends on whether the tertiary students are extrinsically or intrinsically motivated. If students are intrinsically motivated but weak in learning English, they may use more affective strategies. Generally, motivated students tend to use metacognitive strategies because they learn with interest, motivation and expectation of success, which helps them to persist with learning and with

self-regulation. More importantly, this cohort of students has metacognitive awareness.

6.2 Recommendations for practice

The study has shed new light on important factors in the Macao tertiary students' learning of English. These results and existing research inform several recommendations for practice. Both the 3P model and the results of the study reported in this thesis indicate a reciprocal relation between Macao students' beliefs and their selection of English learning strategies. Many of their less helpful English learning beliefs appear to have formed because of the influence of the traditional teaching approaches used in Macao, the Chinese learning culture, examination-oriented assessment and teaching goals.

To modify Macao tertiary students' unhelpful beliefs about learning English, English teachers and lecturers need to recognise that increasing students' motivation to learn English is the essential prerequisite for students letting go these unhelpful beliefs. For fostering students' extrinsic motivation in learning English, first, the traditional Grammar-Translation teaching environment (usually teacher-centred) should be shifted towards a more interactive one. Second, more group work activities could be promoted, so that students might build their learning motivation as well as their confidence with the help of classmates within the same group. Third, English learning goals should be set within the students' capabilities, so that they can anticipate successful learning; otherwise, more learning frustration may be felt instead.

More importantly for teachers and students in Macao is the awareness that producing an authentic communicative environment in a classroom should not be restricted

simply to a shift in teaching approaches but should also account for the effectiveness of learning through communication. When students are able to use English more frequently, and then more accurately after learning from their mistakes, they will definitely become more confident in using English and in overcoming difficulties during the learning process. Moreover, teachers at the secondary school level can also be encouraged to include communicative teaching methods such as Communicative Language Teaching (CLT), Task-Based Language Teaching (TBLT), and the genre-based approach. In addition, English teaching nowadays should be aligned with technology such as the digital game-based online learning, *Livemocha, Wechat*-based mobile learning, and Computer Assisted Pronunciation Training (CAPT).

This study shows that Macao tertiary students tend to learn by rote, which is a kind of surface learning strategy. It can be argued that Macao students' use of surface approaches has contributed to them being unsuccessful English learners. In spite of their tendency to use the surface learning approach, Macao tertiary students' positive attitude towards English learning has not yet been weakened because they understand the importance of English and are eager to learn it (Young, 2006). It is never too late to address inappropriate approaches to learning, even at the tertiary stage, as long as students retain a strong eagerness to learn the language, in addition to being provided with proper strategy instruction (Evans, 1994; Scholten, 2000).

Furthermore, this study shows that Macao tertiary students are not aware of many language learning strategies, which may be the reason for the limited repertoire of strategies. Hence, to help Macao tertiary students to be more strategic, their strategy awareness has to be increased. The different learning strategies can be explicitly taught and integrated into English teaching in the English classroom.

If Macao tertiary students' unhelpful beliefs are addressed, and they are also trained to be strategic and autonomous learners, this will contribute to improved learning outcomes. In addition, since beliefs about language learning are influenced by the broader sociocultural setting, it is important to consider the role of educational policies, in particular language learning and teaching goals, in the formation of learners' beliefs about language learning. When appropriate English language education policies are in place, they contribute to helpful beliefs in students and their teachers, and would therefore also help improve students' language learning outcomes.

6.3 Limitations of the study

This study achieves its purpose in investigating Macao tertiary students' beliefs about learning English, their strategy use in learning English, and the relations between their beliefs and strategy use in learning English. However, limitations in relation to the use of the instruments, data collection, and the capacity for generalising from the study mean the findings need to be treated with caution.

The use of the unrevised LLS taxonomy in the SILL as well as ambiguous items in the BALLI might have influenced students' judgments when they responded to the questionnaire items in these instruments. This may have resulted in some quantitative results being imprecise. Moreover, the SILL and the BALLI were designed more than two decades ago and some items or ideas might be timeworn and less suitable to the learning context and learning culture of students today. For example, it is possible that some students of today neither watch TV shows nor go to the cinema (see Item 15 of the SILL) because they can do both with their mobile phone. Hence, there is a risk that the students only provide responses that may not reflect their actual preferences because they do not have that experience. In addition, the SILL instrument used in this study

was criticised because some items are vague and more skill-like than strategy-like. Strategies are used to operationalise specific skills (Cohen, 2005, 2011; Cohen & Macaro, 2007) but this is not the case for some of the SILL items. For example, "I practice the sounds of English" (Item 12) is skill-like because there are various strategies associated with how to practice the sounds of a language. This ambiguity might influence the results of this study investigating students' strategy use. Furthermore, the SILL instrument has been questioned on the basis of its frequency report design (Cohen, 2005). Frequency of use may be an indication only when examining the overall use of language strategies, without providing information on how successfully a language strategy is used. For example, it is possible that students frequently use a certain strategy but the strategy may be unsuccessful or employed inappropriately.

In this study the SILL items and the BALLI items were not interrelated as well as they could have been following the statistical analysis and the findings were not easily interpreted. The Pearson correlations are low and they account for little of the variance in the relations across the strategy and belief variables. This implies that there is a difference between statistical significance and psychological reality. To a large extent, it may be caused by the SILL and BALLI instruments which contain vague and non-specific statements of strategies and beliefs. As a result, it is hard to correlate using an item-by-item analysis of the SILL and BALLI statements, as mentioned in Section 4.5.2. In future research, it is not recommended to adopt directly the original versions of the SILL and the BALLI, especially when correlational analysis is involved. Proper revision of the SILL and BALLI statements are necessary due to the time-worn design and some of the ambiguous statements in the two instruments.

In future research of this type, the classification of the LLS, and each item of the SILL and BALLI, should be explained to the respondents clearly before use, in addition to the translation provided. Moreover, questionnaire items of the SILL and BALLI must be properly adapted. For example, in consideration of the students from Asian learning culture, rote-memorisation can be included as one learning strategy. To adapt the instruments to students' current language learning contexts, some items of the SILL and BALLI should be fine-tuned. For example, Item 17 of the SILL "I write notes, messages, letters, or reports in English" might be slightly changed to "I write notes, emails, or phone message in English", and Item 21 of BALLI, "It is important to practice with cassettes or tapes.", might be revised to "It is important to practise English through *Facebook* and *WeChat*." The skill-like item (Item 12) of the SILL can be revised to read "I practice the sounds of English through *WeChat*", which is clearly a type of strategy. With regard to the frequency-report design of the SILL, a follow-up interview would be valuable for increasing the reliability of the data collected (Cohen, 2005; Oxford, 2011). These proper adaptions of the two inventories would help reduce the risk of error variance for similar correlational studies in future.

The design of data collection in this study could have been more effective. This study employed Oxford's (1990) LLS inventory (SILL) and Horwitz's (1987) belief inventory (BALLI) for data collection because findings based on these two inventories can be used to compare with those of previous studies (Park, 1995; Yang, 1992), the same instruments were employed. However, data such as these were based on a retrospective self-report (questionnaire and student interviews) and other reports (lecturer interviews) (Oxford, 2011). They would be further complemented if they were based on some specific task materials (Oxford, 2011; Oxford, Cho, Leung & Kim, 2004; Griffiths & Oxford, 2014), and then followed up by interviews where a subsample of

the students provide verbal reports as to the strategies they used to deal with EFL tasks. It might be a valuable addition to the kinds of data generated here also to include verbal protocols while learners are performing a task. This may gather more information about the learners' real specific strategy use. Although follow-up interviews were conducted in this study, the interview questions in this study should have been designed to elicit more about the relations between students' learning beliefs and strategy use instead of asking for their beliefs and strategy use separately. The extra qualitative data collected in this way could be used to explain further the correlational results, presented in Section 4.5. For this reason, future researchers are encouraged to conduct a task-based questionnaire survey when investigating students' strategy use and beliefs, and well-designed interview questions should be used in the follow-up phase. In other words, if the items of the two instruments could have been revised into more specific statements, or if the questionnaire survey could have been designed after a task-based activity, the study results could have been more precise and more easily interpreted.

Finally, findings based on the sample students in this study should not be too widely generalised. The 346 target students in this study were first year university students who studied in the basic English programme within the same university. They were mainly less successful learners who graduated from Chinese-medium secondary schools in Macao. In addition, the sample size of only 12 student interviewees and 5 lecturer interviewees was small. Therefore, caution has to be taken when generalising the results of this study, particularly to learners from different class levels, different cultural backgrounds and in different learning contexts. However, on the basis of this study, future researchers are encouraged to conduct similar studies with tertiary students in other Macao tertiary institutions, those from English-medium secondary schools in Macao, or those within EFL contexts elsewhere where situations might be

more diversified and complicated.

In summary, future researchers in the field undertaking comparable studies need to be aware of three main limitations in relation to the study presented in this thesis. In other words, if drawing on this study, future researchers will need to take into account any recent developments in the design of the survey instruments, the BALLI and the SILL, as well as modifications to the data collection design suggested in this section. Researchers should also avoid over-generalising on the basis of the findings from this study.

6.4 Suggestions for further research

One aspect of the conceptual framework on which this study is based is the 3P model of language learning. Following this model, students' learning behaviours, for example, beliefs about learning English (the presage stage) and their selection of learning strategies (the process stage) contribute to students' learning outcomes (the product stage), that is, at present, the overall unsatisfactory English language learning outcomes of Macao tertiary students. Nevertheless, surprisingly, this study shows a weak to modest correlation between Macao tertiary students' beliefs about English learning and their strategies used to learn English.

This somewhat surprising result may need to be confirmed and explored in further studies. One possible approach would be to base the correlation analysis on more rigorous beliefs and strategy use categories. Tellingly, as Oxford (2011) has demonstrated, the original strategy categories may be collapsed to allow more refined categorisation in terms of meta-affective-strategies and meta-social-strategies. Another possibility is to base future research on refined data collection instruments and

the inclusion of advanced students in a larger sample. Furthermore, there is value in conducting research that examines the crucial links among cognitive, social, and affective variables as was done in this study, but in terms of information technology and LLS (Cohen & Griffiths, 2015). Such research would enable the 3P model to be empirically validated.

Methodologically, research involving learning strategies marks a trend in the direction of think-aloud protocols and learner narratives (Griffiths & Oxford, 2014). This study makes use of Macao tertiary students' narratives explaining their beliefs and strategy use and also the relation between these. The teachers' voices in the interviews of this study represent supplementary data for researching students' strategy use. Hence, the use of teacher narratives would serve to open up the process of strategy instruction in new ways. Moreover, the adoption of think-aloud protocols and task-based approaches is also valuable for data collection, as suggested by Griffiths and Oxford (2014), because this provides more direct access to students' choice of strategies and their reasoning about these choices.

6.5 Concluding remarks

The idiom, "You can lead a horse to water, but you can't make him drink", describes English teaching very well because it involves not only leading students to English, but also making them thirsty for knowledge and understanding of English by means of various learning strategies. Nevertheless, students' positive and appropriate beliefs about learning English should not be ignored during the process of teaching strategic learning. So next time if the researcher were to see Jane again in the corridor, she could confidently tell Jane that:

Learning English is not simply the learning of grammar and vocabulary

for passing examination. Learning English is not only for seeking a good job. At school, English can also be a language to help you understand the other academic subjects as well as life and the cultures of foreigners. At work or in society, English can also be a useful interactive medium in both oral and written communication, especially in Macao with so many foreign corporations investing here and English speakers living here. Let me tell you, Jane, if you can learn English strategically, that is , to learn English with some strategies that are suitable and effective for you, learning English can be very interesting……

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Appendices

Appendix 1 English Learning Questionnaire Survey

Language Learning Questionnaire Survey

Section One

Personal Background Questionnaire

The questions below are for research purposes only. You information and answers will not be made available to anyone. Please answer truly.

1. **Sex**: (1) Male (2) Female

2. **Age**: _____years

3. **Which type of students are you?**

(1) Local Macao students

(2) Overseas students from Mainland China

(3) Overseas students from other countries

4. **What is your major study?**

(1) Computer / Information Technology

(2) Tourism / Exhibition

(3) Business (including Accounting and Economics)

(4) Arts

(5) Law

(6) Communication

(7) Medication

(8) Engineering

(9) Mathematics / Science

(10) Translation

(11) Education

(12) Other (Please specify)

5. **How long have you learnt English**

(1) ≦5 yrs (2) 6-10yrs (3) 11-15yrs (4) ≧16yrs

6. **How do you rate your overall proficiency in English?**

(1) Excellent (2) Good (3) Medium (4) Not good (5) Poor

7. **Why do you want to learn English? (Choose the most appropriate one)**

(1) interest

(2) course requirement

(3) plan to study abroad

(4) other (please specify)_____

8. **How much effort did you spend in learning English?**

(1) Very much (2) Much (3) Medium (4) Not much (5) Not at all

9. **How important is it for you to become proficient English learner in Macao?**

(1) Very important (2) Important (3) Medium (4) Not important (5) Not important at all

10. **Do you enjoy English learning?**

(1) Very much (2) Much (3) Medium (4) Not much (5) Not at all

11. **Are you confident in English learning?**

(1) Very much (2) Much (3) Medium (4) Not much (5) Not at all

12. **If English language is an elective subject, would you like to choose it?**

(1) Very much (2) Much (3) Medium (4) Not much (5) Not at all

13. **Outside the English class, on the average how many hours do you spend every week**

studying English? (e.g. watching English programme, reading English newspaper … etc)

(1) ≦1hr (2) 2-4hrs (3) 5-7hrs (4) 8-10hrs (5)≧10hrs

Section Two

Your beliefs about language learning

Below (No. 14-48) are beliefs that some people have about learning foreign languages. There are no right or wrong answers. We are simply interested in your opinions. Mark each answer on the computer answer sheet. Questions 17 and 28 are slightly different and you should mark them as indicated. Read each statement and then decide if you:

(1) strongly agree

(2) agree

(3) neither agree not disagree

(4) disagree

(5) strongly disagree

14. It is easier for children than adults to learn a foreign language.	1	2	3	4	5
15. Some people have a special ability for learning foreign languages.	1	2	3	4	5
16. Some languages are easier to learn than others.	1	2	3	4	5
17. English is: (1) a very easy language (2) an easy language (3) a language of medium difficulty (4) a difficult language (5) a very difficult language	1	2	3	4	5
18. I believe that I will learn to speak English very well.	1	2	3	4	5
19. People in Macao are good at learning foreign languages.	1	2	3	4	5
20. It is important to speak English with an excellent pronunciation.	1	2	3	4	5
21. It is necessary to know about English-speaking cultures in order to speak English.	1	2	3	4	5
22. You shouldn't say anything in English until you can say it correctly.	1	2	3	4	5
23. It is easier for someone who already speaks a foreign language to learn another one.	1	2	3	4	5
24. People who are good at mathematics or science are not good at learning foreign languages.	1	2	3	4	5
25. It is best to learn English in an English-speaking country.	1	2	3	4	5
26. I enjoy practicing English with the English-speakers I meet.	1	2	3	4	5
27. It's o.k. to guess if you don't know a word in English.	1	2	3	4	5
28. If someone spent one hour a day learning a language, how long would it take them to speak the language very well: (1) less than a year (2) 1-2 years (3) 3-5 years (4) 5-10 years (5) You can't learn a language in 1 hour a day	1	2	3	4	5
29. I have a special ability for learning foreign languages.	1	2	3	4	5
30. The most important part of learning a foreign language is learning vocabulary words.	1	2	3	4	5

31.	It is important to repeat and practice a lot.	1	2	3	4	5
32.	Women are better than men at learning foreign languages.	1	2	3	4	5
33.	People in Macao feel that it is important to speak English.	1	2	3	4	5
34.	I feel timid speaking English with other people	1	2	3	4	5
35.	If beginning students are permitted to make errors in English, it will be difficult for them to speak correctly later on.	1	2	3	4	5
36.	The most important part of learning a foreign language is learning the grammar.	1	2	3	4	5
37.	I would like to learn English so that I can get to know Americans better.	1	2	3	4	5
38.	It is easier to speak than understand a foreign language.	1	2	3	4	5
39.	It is important to practice with audio-visual learning materials.	1	2	3	4	5
40.	Learning a foreign language is different than learning other academic subjects.	1	2	3	4	5
41.	The most important part of learning English is learning how to translate from my native language.	1	2	3	4	5
42.	If I learn English very well, I will have better opportunities for a good job.	1	2	3	4	5
43.	People who speak more than one language are very intelligent.	1	2	3	4	5
44.	I want to learn to speak English well.	1	2	3	4	5
45.	I would like to have American friends.	1	2	3	4	5
46.	Everyone can learn to speak a foreign language.	1	2	3	4	5
47.	It is easier to read and write English than to speak and understand it.	1	2	3	4	5
48.	List your other beliefs about English learning that are not mentioned in section one. *(Please answer this item in the answer sheet on page 2.)*					

Section Three

Your strategy use in English learning

Below (No. 49-99) are the strategies in English learning. Please tell HOW TRUE OF YOU THE STATEMENT IS but not in terms of what you think you should do, or what other people do. There are not right or wrong answers. Read the statements carefully and decide if they are:

1. Always or almost true of me
2. Usually true of me
3. Somewhat true of me
4. Usually not true of me
5. Never or almost never true of me

49.	I think of relationships between what I already know and new things I learn in English.	1	2	3	4	5
50.	use new English words in a sentence so I can remember them.	1	2	3	4	5
51.	I connect the sound of new English word and an image or picture of the word to help me remember the word.	1	2	3	4	5
52.	I remember a new English word by making a mental picture of a situation in which the word might be used.	1	2	3	4	5
53.	I use rhymes to remember new English words.	1	2	3	4	5
54.	I use flashcards to remember new English words.	1	2	3	4	5
55.	I categorize new English words and remember them.	1	2	3	4	5
56.	I review English lessons often.	1	2	3	4	5
57.	I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.	1	2	3	4	5
58.	I say or write new English words several times.	1	2	3	4	5
59.	I try to talk like native English speakers.	1	2	3	4	5
60.	I practice the sounds of English.	1	2	3	4	5
61.	I use the English words I know in different ways.	1	2	3	4	5
62.	I start conversations in English.	1	2	3	4	5
63.	I watch English language TV shows spoken in English or go to movies spoken in English.	1	2	3	4	5
64.	I read for pleasure in English.	1	2	3	4	5
65.	I write notes, messages, letters, or reports in English.	1	2	3	4	5
66.	I first skim an English passage (read over the passage quickly) then go back and read carefully.	1	2	3	4	5
67.	I look for words in my own language that are similar to new words in English.	1	2	3	4	5
68.	I try to find patterns in English.	1	2	3	4	5
69.	I find the meaning of an English word by dividing it into parts that I understand.	1	2	3	4	5
70.	I try not to translate word-for-word.	1	2	3	4	5
71.	I make summaries of information that I hear or read in English.	1	2	3	4	5
72.	To understand unfamiliar English words, I make guesses.	1	2	3	4	5
73.	When I can't think of a word during a conversation in English, I use gestures.	1	2	3	4	5
74.	I make up new words if I do not know the right ones in English. e.g. air ball—balloon	1	2	3	4	5

75.	I read English without looking up every new word.	1	2	3	4	5
76.	I try to guess what the other person will say next in English.	1	2	3	4	5
77.	If I can't think of an English word, I use a word or phrase that means the same thing.	1	2	3	4	5
78.	I try to find as many ways as I can to use my English.	1	2	3	4	5
79.	I notice my English mistakes and use that information to help me do better.	1	2	3	4	5
80.	I pay attention when someone is speaking English.	1	2	3	4	5
81.	I try to find out how to be a better learner of English.	1	2	3	4	5
82.	I plan my schedule so I will have enough time to study English.	1	2	3	4	5
83.	I look for people I can talk to in English.	1	2	3	4	5
84.	I look for opportunities to read as much as possible in English.	1	2	3	4	5
85.	I have clear goals for improving my English skills.	1	2	3	4	5
86.	I think about my progress in learning English.	1	2	3	4	5
87.	I try to relax whenever I feel afraid of using English.	1	2	3	4	5
88.	I encourage myself to speak English even when I am afraid of making a mistake.	1	2	3	4	5
89.	I give myself a reward or treat when I do well in English.	1	2	3	4	5
90.	I notice if I am tense or nervous when I am studying or using English.	1	2	3	4	5
91.	I will talk to someone else about how I feel in English learning.	1	2	3	4	5
92.	If I do not understand something in English, I ask the other person to slow down or say it again.	1	2	3	4	5
93.	I ask English speakers to correct me when I talk.	1	2	3	4	5
94.	I practice English with other students.	1	2	3	4	5
95.	I ask for help from English speakers.	1	2	3	4	5
96.	I ask questions in English.	1	2	3	4	5
97.	I try to learn about the culture of English speakers.	1	2	3	4	5
98.	List your other English learning strategies that are not mentioned in section two. *(Please answer this item in the answer sheet on page 2.)*					

Thank you very much for your participation

Appendix 2 English Learning Questionnaire Survey (Chinese Version)

英语学习问卷调查

第一部分

个人资料

以下问题仅供研究参考，您的个人资料和答案除研究员本人外不会给任何人知道。请如实回答问题。

1. 性别:
   (1) 男
   (2) 女

2. 年龄: _____岁

3. 您是哪一类别的学生？
   (1) 澳门本地学生
   (2) 中国内地学生
   (3) 其他海外国家的学生

4. 您主修的学系是:
   (1) 计算机/信息科技
   (2) 旅游/会展
   (3) 商科 (会计/ 经济/ 商务)
   (4) 艺术
   (5) 法律
   (6) 传播
   (7) 医学
   (8) 工程
   (9) 数学/科学
   (10) 翻译
   (11) 教育
   (12) 其他 (请列明):
   _____

5. 您学英语有多长时间？

(1) 5 年或以下
(2) 6-10 年
(3) 11-15 年
(4) 16 年或以上

6. 您认为自己整体的英语熟练度达到以下哪个水平？
(1) 非常好
(2) 好
(3) 普通
(4) 不太好
(5) 很差

7. 您为何想学英语？ (请选出最合适的一项)
(1) 兴趣
(2) 学科要求
(3) 打算到海外升学
(4) 其他 (请列明):
_____

8. 您对英语学习付出过多少努力？
(1) 非常多
(2) 很多
(3) 普通
(4) 很少
(5) 完全没有

9. 能掌握熟练英语在澳门有多重要？
(1) 非常重要
(2) 很重要
(3) 普通
(4) 不太重要
(5) 完全不重要

10. 您喜欢学英语吗？
(1) 非常喜欢
(2) 很喜欢
(3) 普通

(4) 不太喜欢
(5) 完全不喜欢

11. 您对英语学习有信心吗？
(1) 非常多
(2) 很多
(3) 普通
(4) 很少
(5) 完全没有

12. 若英语被编为选修科，您会选择修读吗？
(1) 一定会
(2) 会
(3) 可能会也可能不会
(4) 不会
(5) 绝对不会

13. 课后您平均每周花多少时间学英语？(例如收看英文节目、看英文报章……等等)
(1) 1 小时或以下
(2) 2-4 小时
(3) 5-7 小时
(4) 8-10 小时
(5) 10 小时或以上

第二部分

对语言学习的看法或信念

以下列举的(题 14 至题 48)是一般人对语言学习的一些看法或信念，请根据你的个人看法，选出最合适的答案。答案无所谓对或错，调查员只对您的个人看法感兴趣。题 17 及题 28 的作答方式稍有不同，请按照说明回答。请同学细心阅读每项叙述，然后决定您是：

(1) 非常同意
(2) 同意
(3) 既非同意也非不同意
(4) 不同意
(5) 非常不同意

14. 小孩学外语较成人容易。 (1) (2) (3) (4) (5)
15. 有些人拥有学外语的特别天分。 (1) (2) (3) (4) (5)
16. 有些语言比较容易学。 (1) (2) (3) (4) (5)
17. 英语是一种 (1) 非常容易学的语言。 (1) (2) (3) (4) (5)
(2) 容易学的语言。
(3) 略为困难的语言。
(4) 困难的语言。
(5) 非常困难的语言。
18. 我相信我可以把英语口语学好。 (1) (2) (3) (4) (5)
19. 澳门人擅长学刁外语。 (1) (2) (3) (4) (5)
20. 准确的发音对英语口语是非常重要的。 (1) (2) (3) (4) (5)
21. 学说英语必须认识英语系国家的文化。 (1) (2) (3) (4) (5)
22. 在能说得正确无误之前，你不要开口说英 (1) (2) (3) (4) (5)
23. 已经学会说一种外语的人比较容易再学另一种外语。
(1) (2) (3) (4) (5)
24. 擅长数理学科的人并不擅长学外语。 (1) (2) (3) (4) (5)
25. 在英语系国家学习英语最理想。 (1) (2) (3) (4) (5)
26. 我喜欢跟遇见的外国人练习英语。 (1) (2) (3) (4) (5)
27. 对不懂的英文单字可以作出猜测。 (1) (2) (3) (4) (5)
28. 如果一位英语水平中等的大学一年级学生每天花上一个小时学英语，此人需要多久才能说得流利？
(1) 少于一年
(2) 一至二年
(3) 三至五年
(4) 五至十年
(5) 永远都学不好
(1) (2) (3) (4) (5)
29. 我有学外语的天分。 (1) (2) (3) (4) (5)
30. 学单字是学外语的最重要部分。 (1) (2) (3) (4) (5)
31. 不断反复练习是很重要的。 (1) (2) (3) (4) (5)
32. 女人较男人擅长学外语。 (1) (2) (3) (4) (5)
33. 澳门人认为懂说英语是很重要的。 (1) (2) (3) (4) (5)
34. 我没有勇气去跟别人说英语。 (1) (2) (3) (4) (5)
35. 如果容许英语初学者犯错而不及时纠正，
日后他们要说正确的英语便很困难。 (1) (2) (3) (4) (5)
36. 学习文法是学外语最重要的部分。 (1) (2) (3) (4) (5)
37. 我想学英语，这样才能令我更了解外国人。 (1) (2) (3) (4) (5)

38. 说外语比听懂外语容易。 (1) (2) (3) (4) (5)
39. 利用视听材料练习是很重要的。 (1) (2) (3) (4) (5)
40. 学外语和学其他学科不同。 (1) (2) (3) (4) (5)

(1) 非常同意
(2) 同意
(3) 既非同意也非不同意
(4) 不同意
(5) 非常不同意

41. 学英语最重要的就是学习如何将中文翻译成英文。 (1) (2) (3) (4) (5)
42. 如果我把英语学好，就会有更好的工作机会。 (1) (2) (3) (4) (5)
43. 会说多于一种语言的人很聪明。 (1) (2) (3) (4) (5)
44. 我很想说好英语。 (1) (2) (3) (4) (5)
45. 我很想结交来自英语系国家的朋支。 (1) (2) (3) (4) (5)
46. 每个人都能学说外语。 (1) (2) (3) (4) (5)
47. 读、写英语比听、说英语容易。 (1) (2) (3) (4) (5)
48. 除了以上所提到的，您对学英语还有什么其他看法？
(请在答题纸上回答)

第三部分

对语言学习的策略

以下列举的(题 49 至题 99)是一些有关语言学习的策略方法，请依该叙述符合您的真实程度作答，切勿依“你认为自己应该如何”或“别人是怎样做”来作答。答案无所谓对或错，请同学细心阅读每项叙述，然后决定是否：

(1) 我经常都会这样做 (表示该叙述几乎完全符合你的情况)
(2) 我一般都会这样做 (表示该叙述多半符合你的情况)
(3) 我有时会，有时不会这样做 (表示该叙述有一半符合你的情况)
(4) 我一般不会这样做 (表示该叙述多半不符合你的情况)
(5) 我从来不会这样做 (表示该叙述完全不符合你的情况)

49. 学习英语时，我会思考已学过的旧东西和新学的东西之间的关系。
(1) (2) (3) (4) (5)
50. 我会把新学的英文单字应用于句子中来加深记忆。 (1) (2) (3) (4) (5)
51. 我把英文单字的发音与其相关的形象和图画联想起来去帮助记忆。
(1) (2) (3) (4) (5)
52. 我会透过想象新学英文单字可能被应用到的情况环境去记忆该字。

(1) (2) (3) (4) (5)

53. 我会利用英文字之间的近似发音去记忆新英文单字。 (1) (2) (3) (4) (5)
54. 我会用生字卡去记英文生字。 (1) (2) (3) (4) (5)
55. 我会把英文生字分类来帮助记忆。 (1) (2) (3) (4) (5)
56. 我经常复刁英文功课。 (1) (2) (3) (4) (5)
57. 我靠回想英文单字或片语曾出现过的位置来记忆。 (1) (2) (3) (4) (5)
(如书本、黑板、路标)。
58. 我会反复说和写新学的英文字数次。 (1) (2) (3) (4) (5)
59. 我尝试说得像以英语为母语的人一样。 (1) (2) (3) (4) (5)
60. 我练习英语发音。 (1) (2) (3) (4) (5)
61. 我会把我所学的英文字用于不同方面。 (1) (2) (3) (4) (5)
62. 我用英语交谈。 (1) (2) (3) (4) (5)
63. 我收看以英语发音的电视节目及电影。 (1) (2) (3) (4) (5)
64. 我阅读英语书刊以自娱。 (1) (2) (3) (4) (5)
65. 我用英文写笔记、书信、或报告。 (1) (2) (3) (4) (5)
66. 我首先会快速浏览文章一次，然后再次仔细阅读。 (1) (2) (3) (4) (5)
67. 我会在发音或意思上找出与新学英文字相类似的中文字。(1) (2) (3) (4) (5)
68. 我会尝试找出英文的句型。 (1) (2) (3) (4) (5)
69. 我把一个英文字分解成几个我认得的部分来找出它的意思。(1) (2) (3) (4) (5)
70. 我避免逐字翻译。 1) (2) (3) (4) (5)
71. 我将我所听到的和阅读到的英文作概要。 (1) (2) (3) (4) (5)
72. 遇到不熟悉的英文字时会猜出其意思。 (1) (2) (3) (4) (5)

(1) 我经常都会这样做 (表示该叙述几乎完全符合你的情况)
(2) 我一般都会这样做 (表示该叙述多半符合你的情况)
(3) 我有时会，有时不会这样 (表示该叙述有一半符合你的情况)
(4) 我一般不会这样做 (表示该叙述多半不符合你的情况)
(5) 我从来不会这样做 (表示该叙述完全不符合你的情况)

73. 在英语会话中，若我想不起某个字，我会使用手势或动作来表达。
(1) (2) (3) (4) (5)
74. 当我不知道正确的英文字肘，我会自己造字来表达 (1) (2) (3) (4) (5)
(如用 air ball 来表达气球 balloon)。
75. 在阅读英文时，我不会每个字都去查字典。 (1) (2) (3) (4) (5)
76. 我会去猜测别人下一句要说的英文。 (1) (2) (3) (4) (5)
77. 当我想不出某个英文字时，我会使用相同意思的字或片语去表达。
(1) (2) (3) (4) (5)
78. 我会尽量从多方面运用我所学的英文。 (1) (2) (3) (4) (5)
79. 我会留意自己的英语错误，并利用它来改进。 (1) (2) (3) (4) (5)
80. 当别人说英语时，我会特别留意听。 (1) (2) (3) (4) (5)

81. 我尝试去找出如何学好英语的方法。 (1) (2) (3) (4) (5)
82. 我会订立自己的时间表，使自己有足够的时间去研习英语。(1) (2) (3) (4) (5)
83. 我会留心寻访可以用英语交谈的对象。 (1) (2) (3) (4) (5)
84. 我会争取所有可以阅读英文的机会。 (1) (2) (3) (4) (5)
85. 我有明确的目标，改进我的英语技能。 (1) (2) (3) (4) (5)
86. 我会考虑自己英语学习的进展。 (1) (2) (3) (4) (5)
87. 每当我感到害怕使用英语时，我会设法使自己心情放松。(1) (2) (3) (4) (5)
88. 即使畏惧犯错，我仍然鼓励自己说英语。 (1) (2) (3) (4) (5)
89. 每当我的英语良好，我会奖励自己。 (1) (2) (3) (4) (5)
90. 当我温习或应用英语时，我会留意自己是否紧张。 (1) (2) (3) (4) (5)
91. 我会和别人讨论自己学英语的感受。 (1) (2) (3) (4) (5)
92. 假如在英语会话中有听不懂的地方，我会要求对方说慢一点或重说一遍。
(1) (2) (3) (4) (5)
93. 说英语时，我要求对方纠正我的错误。 (1) (2) (3) (4) (5)
94. 我会与其他同学练习英文。 (1) (2) (3) (4) (5)
95. 我会向讲英语的人请教。 (1) (2) (3) (4) (5)
96. 我会用英语发问。 (1) (2) (3) (4) (5)
97. 我尝试学习英语国家的文化。 (1) (2) (3) (4) (5)
98. 除了以上所提到的英语学习策略外，您自己学英语是否还有其他的方法或策略？

(请在答题纸上回答)

非常感谢您的参与 ！

Appendix 3Beliefs About Language Learning Inventory (BALLI)

Beliefs About Language Learning Inventory (BALLI)

ESL Student Version

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Below are beliefs that some people have about learning foreign languages.
Read each statement and then decide if you:
(1) strongly agree, (2) agree, (3) neither agree not disagree, (4) disagree, (5) strongly disagree.
There are no right or wrong answers. We are simply interested in your opinions. Mark each answer on the special answer sheet. Questions 4 & 15 are slightly different and you should mark them as indicated.
REMEMBER:
(1) strongly agree, (2) agree, (3) neither agree not disagree, (4) disagree, (5) strongly disagree.

1. It is easier for children than adults to earn a foreign language.
2. Some people have a special ability for learning foreign languages.
3. Some languages are easier to learn than others.
4. English is: (a) a very difficult language
   (b) a difficult language
   (c) a language of medium difficulty
   (d) an easy language
   (e) a very easy language
5. I believe that I will learn to speak English very well.
1. People from my country are good at learning foreign languages.
2. It is important to speak English with an excellent pronunciation.
3. It is necessary to know about English-speaking cultures in order to speak English.
4. You shouldn’t say anything in English until you can say it correctly.
5. It is easier for someone who already speaks a foreign language to learn another one.
6. People who are good at mathematics or science are not good at learning foreign languages.
7. It is best to learn English in an English-speaking country.

8. I enjoy practicing English with the Americans I meet.
9. It's o.k. to guess if you don't know a word in English.
10. If someone spent one hour a day learning a language, how long would it take them to speak the language very well:
    (a) less than a year
    (b) 1-2 years
    (c) 3-5 years
    (d) 5-10 years
    (e) You can't learn a language in 1 hour a day

11. I have a special ability for learning foreign languages.
12. The most important part of learning a foreign language is learning vocabulary words.
13. It is important to repeat and practice a lot.
14. Women are better than men at learning foreign languages.
15. People in my country feel that it is important to speak English.
16. I feel timid speaking English with other people
17. If beginning students are permitted to make errors in English, it will be difficult for them to speak correctly later on.
18. The most important part of learning a foreign language is learning the grammar.
19. I would like to learn English so that I can get to know Americans better.
20. It is easier to speak than understand a foreign language.
21. It is important to practice with cassettes or tapes.
22. Learning a foreign language is different than learning other academic subjects.
23. The most important part of learning English is learning how to translate from my native language.
24. If I learn English very well, I will have better opportunities for a good job.
25. People who speak more than one language are very intelligent.
26. I want to learn to speak English well.
27. I would like to have American friends.
28. Everyone can learn to speak a foreign language.
29. It is easier to read and write English than to speak and understand it.

Appendix4 Strategy Inventory for Language Learning (SILL)

Strategy Inventory for Language Learning (SILL)

Version for Speakers of Other Languages Learning English

Version 7.0 (ESL/EFL)

© R. Oxford, 1990

Directions:

This form of the Strategy Inventory for Language Learning (SILL) is for students of English as a second or foreign language. You will find statements about learning English. Please read each statement. On the separate Worksheet, write the response (1,2,3,4, or 5) that tells HOW TRUE OF YOU THE STATEMENT IS.

1 Never or almost never true of me
(means that the statement is very rarely true of you)

2 Usually not true of me
(means that the statement is true less than half of the time)

3 Somewhat true of me
(means that the statement is true of you about half the time)

4 Usually true of me
(means that the statement is true more than half the time)

5 Always or almost always true of me
(means that the statement is true of you almost always)

Answer in terms of how well the statement describes you. Do not answer how you think you should be, or what other people do. There are no right or wrong answers to these statements. Put your answers on the separate Worksheet. Please make no marks on the items. Work as quickly as you can without being careless. This usually takes about 20-30 minutes to complete. If you have any questions, let the teacher know immediately.

Example

1. Never or almost never true of me
2. Usually not true of me
3. Somewhat true of me
4. Usually true of me
5. Always or almost always true of me

Read the item, and choose a response (1 through 5 as above), and write it in the space after the item.

I actively seek out opportunities to talk with native speakers of English. _____

You have just completed the example item. Answer the rest of the items.

Strategy Inventory for Language Learning

Version 7.0 (ESL/EFL)

© R. Oxford,1990

1. Never or almost never true of me
2. Usually not true of me
3. Somewhat true of me
4. Usually true of me
5. Always or almost true of me

Part A

1. I think of relationships between what I already know and new things I learn in English. _____
2. I use new English words in a sentence so I can remember them. _____
3. I connect the sound of new English word and an image or picture of the word to help me remember the word. _____
4. I remember a new English word by making a mental picture of a situation in which the word might be used. _____
5. I use rhymes to remember new English words. _____
6. I use flashcards to remember new English words. _____
7. I physically act out new English words. _____
8. I review English lessons often. _____
9. I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign. _____

Part B

10. I say or write new English words several times. _____
11. I try to talk like native English speakers. _____
12. I practice the sounds of English. _____
13. I use the English words I know in different ways. _____
14. I start conversations in English. _____
15. I watch English language TV shows spoken in English or go to movies spoken in English. _____
16. I read for pleasure in English. _____
17. I write notes, messages, letters, or reports in English. _____

18. I first skim an English passage (read over the passage quickly) then go back and read carefully. _____
19. I look for words in my own language that are similar to new words in English. _____
20. I try to find patterns in English. _____
21. I find the meaning of an English word by dividing it into parts that I understand. _____
22. I try not to translate word-for-word. _____
23. I make summaries of information that I hear or read in English. _____

Part C

24. To understand unfamiliar English words, I make guesses. _____
25. When I can't think of a word during a conversation in English, I use gestures. _____
26. I make up new words if do not know the right ones in English. _____
27. I read English without looking up every new word. _____
28. I try to guess what the other person will say next in English. _____
29. If I can't think of an English word, I use a word or phrase that means the same thing. _____

Part D

30. I try to find as many ways as I can to use my English. _____
31. I notice my English mistakes and use that information to help me do better. _____
32. I pay attention when someone is speaking English. _____
33. I try to find out how to be a better learner of English. _____
34. I plan my schedule so I will have enough time to study English. _____
35. I look for people I can talk to in English. _____
36. I look for opportunities to read as much as possible in English. _____
37. I have clear goals for improving my English skills. _____
38. I think about my progress in learning English. _____

Part E

39. I try to relax whenever I feel afraid of using English. _____
40. I encourage myself to speak English even when I am afraid of making a mistake. _____
41. I give myself a reward or treat when I do well in English. _____
42. I notice if I am tense or nervous when I am studying or using English. _____

43. I write down my feelings in a language learning diary. _____
44. I talk to someone else about how I feel when I am learning English. _____

Part F

45. If I do not understand something in English, I ask the other person to slow down or say it again. _____
46. I ask English speakers to correct me when I talk. _____
47. I practice English with other students. _____
48. I ask for help from English speakers. _____
49. I ask questions in English. _____
50. I try to learn about the culture of English speakers. _____

Appendix5 Information Sheet for StudentInterviewees

INFORMATION SHEET FOR PARTICIPANTS

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No.HE10/195, Valid to 01/02/2013)

Research Project Title:
University Students' Beliefs and Strategy Use about English Learning in Macao

Dear Students,

I wish to invite you to participate in my research on above topic. The details of the study follow and I hope you will consider being involved. I am conducting this research project for my EdD at the University of New England under the supervision of my principal supervisor Dr Mike Littledyke and my co-supervisor Dr Susan Feez. Our contact details appear overleaf.

Aim of the Study:
The aim of this study is to identify suitable teaching approaches to cultivate second language learners' capacity for self-directed learning in tertiary institutions through investigating ESL tertiary students' beliefs and their learning strategy use. This research will examine how to contribute the relationship between beliefs and strategy use into pedagogic practice to shape more strategic and self-directed second language learners in the long term. Simultaneously it helps to coordinate with the new phase of educational reform in Macao in which life-long learning is the top emphasis.

Interviews:
A face-to-face interview lasting approximately 45 minutes will be audiotaped with the permission of the interviewees. There will be a series of open-ended questions that allow you to explore your views on your beliefs and strategy use about English learning. These interviews will be audiotape recorded with your permission.

Participation is completely voluntary. You may withdraw from the project at any time and there will be no disadvantage if you decide not to participate or withdraw at any time.

All information provided by the interviewees will be confidential and will be accessed only by me. Audiotapes and transcriptions will be kept safely for five years following thesis submission and then destroyed.

Research Process:
It is anticipated that this research will be completed by the end of 2012. The results may also be presented at conferences or written up in journals without any identifying information.

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:
Research Services
University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449 Facsimile (02) 6773 3543
Email: ethics@une.edu.au

Thank you for considering this request and I look forward to further contact with you.
Yours faithfully,
Wai Sa Ip

Contact details:
Dr Mike Littledyke
School of Education
Faculty of the Professions
University of New England
mlittled@une.edu.au
612 6773 2509

Dr Susan Feez
School of Education
Faculty of the Professions
University of New England
sfeez@une.edu.au
612 6773 2920

Wai Sa Ip
School of Education

Faculty of the Professions
University of New England
wip@une.edu.au
853 6697 9086.

Appendix6 Information Sheet for Student Interviewees (Chinese Version)

参与人须知

此研究项目已获得澳大利亚新英格兰大学人类研究道德委员会的批准
(批号: HE10/195，有效至 01/02/2013)

研究题目: 澳门大学生对英语学习的信念和策略应用

亲爱的同学们:
本人是澳大利亚新英格兰大学的博士研究生，在 Dr Mike Littledyke 和 Dr Susan Feez 的指导下进行这项研究。现诚邀您们参与本次研究项目。研究项目的详细资料和联络资料如下:

研究目的

透过了解大学生对英语学习的信念和策略应用，以及透过分析其二者之间的关系，探讨一些针对培养澳门大学生自学英语的教学方法。研究结果能有助大学生成为有自学能力和有策略性的英语学习者，并为澳门教育改革方案中所强调的终生学习的教育目标打下良好基础。

访问

本次访问是以一对一形式在大学校园内进行，完全是自愿性质参加，约需时 45 分钟。本人会在最适合您的时间内为您安排访问，谈话的内容在你同意的情况下会被录音，以方便资料记录。您会被问及有关您自己对学英语的信念和过程中所采用的策略，也可以分享一下您对现时澳门大学生英语自学能力的看法。同学们提供的所有资料只会由本人亲自收集，故绝对安全保密。资料会一直保存五年，然后全部销毁。

本次研究预期会在 2012 年完成，研究结果很可能会在学术会议或期刊上发表，但同学们的个人资料绝对不会被公开。同学们若对本次研究有任何投诉，可联络研究道德办公室。

再次感谢同学们的宝贵时间，并衷心希望您们勇跃参与这项访问活动。

此致

Sarah Wai Sa Ip

联络资料:

Research Services (研究办公室)
University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449

Facsimile (02) 6773 3543
Email: ethics@une.edu.au

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853 6697 9086.

Appendix7 Consent Form for Participants

Research Project:

University Students' Beliefs and Strategy Use about English Learning in Macao

I, ……., have read the information contained in the Information Sheet for Participants and any questions I have asked have been answered to my satisfaction.

Yes/No

I agree to participate in this activity, realising that I may withdraw at any time.

Yes/No

I agree that research data gathered for the study may be published using a pseudonym

Yes/No

I agree to the interview being audiotape recorded and transcribed.

Yes/No

…….. …….

Participant Date

…….. …….

Researcher Date

Appendix8 Consent Form for Participants(Chinese Version)

参与同意书

研究题目: 澳门大学生对英语学习的信念和策略应用

我已阅读过*参与人须知*上的资料，对于资料上有怀疑的问题得到了满意的解释。是 / 否

我同意参与这次活动，并清楚知道自己在任何时间也能退出参与。是 / 否

我同意调查所得的资料可能会用匿名形式公开发表。

是 / 否

我同意访问内容被录音和转编成文字形式。是 / 否

…… ……

参与人 日期

…… ……

研究员 日期

Appendix9 Information Sheet for Teacher Interviewees

INFORMATION SHEET FOR PARTICIPANTS

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE10/195, Valid to 01/02/2013)

Research Project Title:
University Students' Beliefs and Strategy Use about English Learning in Macao

Dear Teachers,

I wish to invite you to participate in my research on above topic. The details of the study follow and I hope you will consider being involved. I am conducting this research project for my EdD at the University of New England under the supervision of my principal supervisor Dr Mike Littledyke and my co-supervisor Dr Susan Feez. Our contact details appear overleaf.

Aim of the Study:
The aim of this study is to identify suitable teaching approaches to cultivate English learners' capacity for self-directed learning in tertiary institutions through investigating ESL tertiary students' beliefs and their learning strategy use. This research will examine how to contribute the relationship between beliefs and strategy use into pedagogic practice to shape more strategic and self-directed English learners in the long term. Simultaneously it helps to coordinate with the new phase of educational reform in Macao in which life-long learning is the top emphasis.

Interviews:
A face-to-face interview lasting approximately 45 minutes will be audiotaped with the permission of the interviewees. There will be a series of open-ended questions that allow you to share opinions on English teaching regarding students' strategy use, English learners' self-directed learning and the need of strategy instruction from the perspectives on development of tertiary education. These interviews will be audiotape recorded with your permission.

Participation is completely voluntary. You may withdraw from the project at any time and there will be no disadvantage if you decide not to participate or withdraw at any time.

All information provided by the interviewees will be confidential and will be accessed only by me. Audiotapes and transcriptions will be kept safely for five years following thesis submission and then destroyed.

Research Process:

It is anticipated that this research will be completed by the end of 2013. The results may also be presented at conferences or written up in journals without any identifying information.

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services
University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449 Facsimile (02) 6773 3543
Email: ethics@une.edu.au

Thank you for considering this request and I look forward to further contact with you.

Regards
Wai Sa Ip

Contact details:

Dr Mike Littledyke
School of Education
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mlittled@une.edu.au
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Dr Susan Feez
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Wai Sa Ip
School of Education

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University of New England
wip@une.edu.au
853 6697 9086.

Appendix10 Email Contacts with Teacher Interviewees

-----Original Message-----
From: Ip Wai Sa
Sent: Monday, October 25, 2010 12:58 PM
To: John
Subject: RE: Questionnaire Survey and interviews
Hi John,

Thank you very much for your approval.

The sample size is very flexible depending on the time and availability. But of course it would be ideal to get more.

Regards,
Sarah

-----Original Message-----
From: John
Sent: Mon 2010/10/25 12:08PM
To: Ip Wai Sa
Subject: RE: Questionnaire Survey and interviews

Hi Sarah,

It shouldn't be a problem. What's the sample size you are looking at?

Best regards,

John

-----Original Message-----
From: Ip Wai Sa
Sent: Mon 10/25/2010 12:35 AM
To: John
Subject: RE: Questionnaire Survey and interviews

Hi John,

I write to seek your approval in advance on conducting a questionnaire survey and interviews with the first year students at MUST.

The students will only be asked about their beliefs and strategy use on English learning. I plan to conduct the survey in normal English classes next semester but of course will do it with the permission of the English teachers to ensure that their lectures will not be interferred. The students are voluntary to participate in the interviews. The face-to-face interviews will be held at their free time at MUST.

These are very helpful and useful data sources for my doctoral research. I hope to get your support and agreement on this questionnaire survey. I look forward to your reply.

Regards,
Sarah

-----Original Message-----
From: Bessie
Sent: Mon2012/7/9 12:45PM
To: Ip Wai Sa
Subject: Invitation for a teacher interview

Of course yes.

See you then, Sarah!

-----Original Message-----
From: Ip Wai Sa
Sent: Sun2012-7-8 12:03 PM
To: Bessie
Subject: RE: Invitation for a teacher interview

Thanks Bessie.

How about 11am on 20 July at my office?

Sarah

-----Original Message-----
From: Bessie
Sent: Sat 2012/7/7 12:16PM
To: Ip Wai Sa
Subject: RE: Invitation for a teacher interview
Dear Sarah,

Actually any time is fine with me. What about July 20th, when you finish teaching?

Nice weekend!
Bessie

-----Original Message-----
From: Werner
Sent: Tues2012/6/5 10:16AM
To: Ip Wai Sa
Subject: RE: Invitation for a teacher interview

Hi Sarah

We can meet any time during the week, Mondays to Thursdays between 10.30 and 11.30am, except this coming Thursday (June 7).

Best,

Werner

-----Original Message-----
From: Echo
Sent: Mon2012/6/4 06:10PM
To: Ip Wai Sa
Subject: RE: Invitation for a teacher interview

Dear Sarah,

I’m happy to have the chance to participate in your interview.

I’ll be in my office tomorrow afternoon after 3:30.

Best,

Echo

-----Original Message-----
From: Nikko
Sent: Mon 2012/6/4 04:45PM
To: Ip Wai Sa
Subject: RE: Invitation for a teacher interview

Dear Sarah,

No problem! Since we are going to have a meeting next Wednesday (Jun 13), so how about having this interview afterwards?

Nikko

-----Original Message-----
From: Sarah
Sent: Mon 2012/6/4 11:10AM
To: Ip Wai Sa
Subject: Invitation for a teacher interview

Dear Sarah,
Honored to be invited. I could take the interview during July, so we can fix the date later, okay?

Best,
Sarah

-----Original Message-----
From: Ip Wai Sa
Sent: Mon6/4/2012 11:04AM
To: Werner; Echo; Sarah; Nikko; Bessie
Cc: John; Ip Wai Sa
Subject: Re: Invitation for a teacher interview
Dear all,

I would like to invite you to participate in a teacher interview at MUST, casually talking about our students' English learning.

I am now conducting my doctoral research at MUST. I have finished the student questionnaire survey last semester and found some interesting results. I want to share these results with you and hope to get some of your valuable opinions on them. This is a face-to-face interview in English. It will be held at any of your convenience in this mid June and July and takes approximately 45 minutes.

You are kindly invited because all of you are experienced lecturers in teaching Year 1 students at MUST, who is the target student group in my research. I hope this research not only fulfils the requirement of my study but also helps all English lecturers at MUST to realize more about our students' English learning, so that our teaching effort and relevant teaching methodology could be more effectual on them.

I look forward to your positive reply and thank very much for your attention.
Regards,
Sarah Ip

Appendix11 Interview Questions for Students

Demographics

1. What is your English name?
2. Are you a new freshman or a repeated student?
3. What is your Major?
4. When did you start learning English?

English Learning experience

5. What is your English proficiency? (Level 1-10) Why do you think so?
6. What makes you enjoy / hate English learning?
7. What motivate you to learn English?
8. How much effort did you put in learning English? (Level 1-10) _____
9. What is the main difference between your English learning in high school and in universities?
10. What learning problems are you facing now in your tertiary English learning?
11. What would you do to improve your English after school?

Views on beliefs about English Learning

12. Which is the most important part in English learning? Why?
13. What do you want/expect to learn in a tertiary English classroom?
14. What are the characteristics of a successful English learner?
15. Do you think English is important in Macau? Why do you think so?
16. Which is more important, teaching you what to learn or teaching you how to learn?

Views about English Learning Strategies

17. What types of strategies did you frequently use in English learning?
18. When and where did you know about these strategies?
19. What will you do when you know your English learning strategies or methods are not suitable to you?
20. What will you do when you have difficulties in English learning?
21. Do you think your current English learning strategies are influenced by your beliefs about English learning?
22. Do you think strategy teaching is necessary and useful in schools or university? Will you suggest it to be an academic course in schools or universities?
23. If you know how to learn, you can be a life-long learner. Do you agree with it?

Perspectives and expectations on English Learning and Teaching in University

24. Who plays the most important role in the process of English teaching and learning, students or teachers? Why?

25. What do you think you need to do for better English learning outcome at University?
26. In general, what can English teachers and your university do to help you to improve your English?

Opinions on the Survey Results

27. The questionnaire survey result shows that 74% students start learning English since kindergarten, but 70% of them felt they are very poor in English and 78 % of them even felt they are unconfident in learning English, in your opinion, why?

28. The survey result shows that 87% students realize the importance of English in Macau and 60% students think that good English can provide them more job opportunity, but 87% of students confess that they spent very little effort in English learning, and about 54% students said that they spent less than an hour each week in learning English, in your opinion why?

Appendix12 Interview Questions for Teachers

Demographics

1. How long have you been teaching in Macao tertiary institutions?
2. What English courses(for year one students) have you normally been assigned to teach?

Views on students' beliefs about English learning

3. From your observation, what are your students' general beliefs about English learning?
4. Will students' personal beliefs affect their English learning? How?
5. Should students' incorrect preconceived beliefs on English learning be changed? How?

View on students' English learning strategies

6. What kinds of English learning strategies are frequently employed among your successful students and unsuccessful students?
7. What factors are likely to influence students' strategy choice?
8. In general, are your students strategic English learners?
9. Is there any relation between learning beliefs and learning strategies?

Views on English teaching in Macao tertiary institutions

10. What role should an English teacher play in a tertiary classroom?
11. Should we focus more on students' learning or teachers' teaching methodology while planning a lesson?
12. Which is more important, teaching students **WHAT** to learn or teaching students **HOW** to learn?
13. Do you think strategy instruction is necessary in Macao English education, starting from primary school, high school or university?

Share your opinions on the following survey results conducted at MUST

14. The questionnaire survey result shows that many local students at MUST have learnt English for about 15 years, but many of them still felt they are unconfident and poor in using English, in your opinion, why?
    Students' responses: -forget everything after the tests and exams

-no interest due to the boring teaching methods
-Seldom use English in daily life / Cantonese environment in Macau

15. In the student interviews, many local students at MUST confessed that their purpose for learning English is mainly to find a good job. Do you think this learning purpose will influence their English learning (eg. Learning strategy use) ?

16. The questionnaire survey result shows that local students at MUST realize the importance of English in Macau, especially for their future career. However, many of them confess that they spent less than an hour each week in learning English excluding the English classes, in your opinion why?
    Students' responses: -Part-time job / play / lazy
    -no interest at all
    -have to study other subjects

17. What do you think about the following three relations between the English learning beliefs and strategy use of Macao students at MUST, which were found in the questionnaire survey?

    a. Students who have higher learning motivation and positive beliefs on the importance of repetitive practice and vocabulary learning are more likely to employ compensation strategies but less metacognitive strategies.

    b. Students who have higher self-confidence on English learning are more likely to employ metacognitive strategies but they are less likely to use the cognitive and vocabulary memory strategies, and compensation strategies.

    c. Students who have certain beliefs about being a good English learner are likely to employ the cognitive and vocabulary memory strategies but they seem to employ the metacognitive strategies less frequently than those who have no preconceived beliefs on how to be good English learners.

Appendix13 Pattern Matrix of Beliefs

Pattern Matrixof Beliefs				
Belief Items	Component			
	1	2	3	4
14.It is easier for children than adults to learn a foreign language.	**.085**	**-.065**	**-.121**	**.577**
15.Some people have a special ability for learning foreign languages.	**-.060**	**.083**	**.321**	**.329**
16.Some languages are easier to learn than others.	**.027**	**.022**	**.034**	**.284**
17.Is English easy or difficult?	**.033**	**-.581**	**.172**	**-.246**
18.I believe that I will learn to speak English very well.	**.229**	**-.639**	**-.006**	**-.186**
19.People in Macao are good at learning foreign languages.	**.052**	**-.250**	**.275**	**-.335**
20.It is important to speak English with an excellent pronunciation.	**.304**	**.002**	**-.013**	**.226**
21.It is necessary to know about English-speaking cultures in order to speak English.	**.029**	**-.176**	**.178**	**.230**
22. You shouldn't say anything in English until you can say it correctly.	**-.022**	**.264**	**.536**	**.041**
23. It is easier for someone who already speaks a foreign language to learn another one.	**.047**	**-.153**	**.395**	**-.030**
24. People who are good at mathematics or science are not good at learning foreign languages.	**-.313**	**.125**	**.492**	**.326**
25. It is best to learn English in an English-speaking country.	**.214**	**-.105**	**-.057**	**.473**
26. I enjoy practicing English with the English-speakers I meet.	**.117**	**-.553**	**-.099**	**.046**
27. It's o.k. to guess if you don't know a word in English.	**.050**	**-.382**	**-.137**	**.219**
28. If someone spent one hour a day learning a language, how long would it take them to speak the language very well?	**-.073**	**-.411**	**-.045**	**.089**
29. I have a special ability for learning foreign languages.	**-.167**	**-.582**	**.274**	**-.193**
30. The most important part of learning a foreign language is learning vocabulary words.	**.521**	**-.045**	**.025**	**.091**
31. It is important to repeat and practice a lot.	**.522**	**-.061**	**-.055**	**.219**
32. Women are better than men at learning foreign languages.	**-.216**	**-.085**	**.192**	**.518**
33. People in Macao feel that it is important to speak English.	**.632**	**.034**	**.157**	**-.065**
34. I feel timid speaking English with other people	**.242**	**.402**	**.414**	**.128**
35. If beginning students are permitted to make errors in English, it will be difficult for them to speak correctly later on.	**.409**	**.173**	**-.013**	**.210**
36. The most important part of learning a foreign language is learning	**.295**	**.050**	**.337**	**.032**

the grammar.				
37. I would like to learn English so that I can get to know Americans better.	**.132**	**-.386**	**.191**	**.142**
38. It is easier to speak than understand a foreign language.	**-.098**	**-.377**	**.174**	**.265**
39. It is important to practice with audio-visual learning materials.	**.236**	**-.126**	**-.039**	**.346**
40. Learning a foreign language is different than learning other academic subjects.	**.126**	**.104**	**.164**	**.418**
41. The most important part of learning English is learning how to translate from my native language.	**.192**	**.128**	**.503**	**.113**
42. If I learn English very well, I will have better opportunities for a good job.	**.657**	**.082**	**.007**	**-.015**
43. People who speak more than one language are very intelligent.	**.088**	**-.185**	**.553**	**-.054**
44. I want to learn to speak English well.	**.715**	**-.130**	**.015**	**-.101**
45. I would like to have American friends.	**.389**	**-.361**	**-.144**	**.178**
46. Everyone can learn to speak a foreign language.	**.525**	**-.088**	**.075**	**-.320**
47. It is easier to read and write English than to speak and understand it.	**-.063**	**-.160**	**.364**	**-.063**

Appendix14 Pattern Matrix of Strategies

Pattern Matrix of Strategies			
	Component		
	1	2	3
49. I think of relationships between what I already know and new things I learn in English.	**.383**	**.155**	**-.178**
50. I use new English words in a sentence so I can remember them.	**.474**	**.013**	**-.194**
51. I connect the sound of new English word and an image or picture of the word to help me remember the word.	**.403**	**.177**	**-.097**
52. I remember a new English word by making a mental picture of a situation in which the word might be used.	**.408**	**.196**	**-.165**
53. I use rhymes to remember new English words.	**.236**	**.194**	**-.097**
54. I use flashcards to remember new English words.	**.675**	**-.104**	**.090**
55. I categorize new English words and remember them.	**.745**	**-.079**	**.143**
56. I review English lessons often.	**.447**	**-.102**	**-.279**
57. I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.	**.196**	**.217**	**-.215**
58. I say or write new English words several times.	**.419**	**.083**	**-.299**
59. I try to talk like native English speakers.	**.368**	**.217**	**-.246**
60. I practice the sounds of English.	**.350**	**.217**	**-.263**
61. I use the English words I know in different ways.	**.315**	**.304**	**-.197**
62. I start conversations in English.	**.533**	**.160**	**-.094**
63. I watch English language TV shows spoken in English or go to movies spoken in English.	**.390**	**.111**	**-.076**
64. I read for pleasure in English.	**.798**	**-.062**	**-.002**
65. I write notes, messages, letters, or reports in English.	**.807**	**-.148**	**.002**
66. I first skim an English passage (read over the passage quickly) then go back and read carefully.	**.279**	**.308**	**-.018**
67. I look for words in my own language that are similar to new words in English.	**.362**	**.096**	**-.174**
68. I try to find patterns in English.	**.443**	**.163**	**-.282**
69. I find the meaning of an English word by dividing it into parts that I understand.	**.551**	**.077**	**-.033**
70. I try not to translate word-for-word.	**.481**	**.048**	**.060**
71. I make summaries of information that I hear or read in English.	**.405**	**.115**	**-.295**
72. To understand unfamiliar English words, I make guesses.	**.113**	**.538**	**.042**

73. When I can't think of a word during a conversation in English, I use gestures.	**-.089**	**.472**	**-.152**
74. I make up new words if I do not know the right ones in English. e.g. air ball—balloon	**.050**	**.559**	**.207**
75. I read English without looking up every new word.	**.294**	**.366**	**.176**
76. I try to guess what the other person will say next in English.	**.443**	**.221**	**.035**
77. If I can't think of an English word, I use a word or phrase that means the same thing.	**-.082**	**.675**	**-.075**
78. I try to find as many ways as I can to use my English.	**.107**	**.383**	**-.360**
79. I notice my English mistakes and use that information to help me do better.	**.077**	**.300**	**-.502**
80. I pay attention when someone is speaking English.	**-.152**	**.285**	**-.611**
81. I try to find out how to be a better learner of English.	**-.104**	**.056**	**-.727**
82. I plan my schedule so I will have enough time to study English.	**.448**	**-.195**	**-.472**
83. I look for people I can talk to in English.	**.389**	**.061**	**-.357**
84. I look for opportunities to read as much as possible in English.	**.399**	**-.138**	**-.496**
85. I have clear goals for improving my English skills.	**.337**	**-.138**	**-.572**
86. I think about my progress in learning English.	**.050**	**-.148**	**-.730**
87. I try to relax whenever I feel afraid of using English.	**.063**	**.013**	**-.460**
88. I encourage myself to speak English even when I am afraid of making a mistake.	**.092**	**.138**	**-.479**
89. I give myself a reward or treat when I do well in English.	**.481**	**-.004**	**.023**
90. I notice if I am tense or nervous when I am studying or using English.	**.399**	**-.074**	**-.295**
91. I will talk to someone else about how I feel in English learning.	**.230**	**.065**	**-.406**
92. If I do not understand something in English, I ask the other person to slow down or say it again.	**-.071**	**.551**	**-.189**
93. I ask English speakers to correct me when I talk.	**.256**	**.183**	**-.266**
94. I practice English with other students.	**.436**	**.236**	**-.132**
95. I ask for help from English speakers.	**.242**	**.276**	**-.231**
96. I ask questions in English.	**.611**	**.038**	**-.069**
97. I try to learn about the culture of English speakers.	**.700**	**-.029**	**.051**

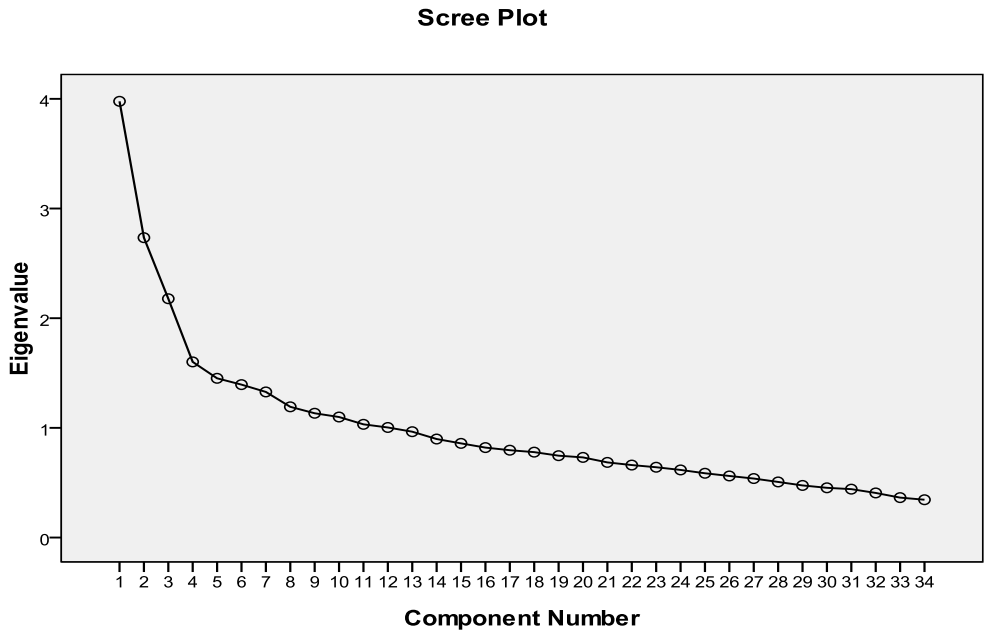
Appendix15Rotated Factor Matrix of BALLI variables

Rotated Factor Matrix of BALLI variables				
Items	Factor 1 (FB1)	Factor 2 (FB2)	Factor 3 (FB3)	Factor 4 (FB4)
44	.715			
42	.657			
33	.632			
46	.525			
31	.522			
30	.521			
18		-.639		
29		-.582		
17		-.581		
26		-.553		
43			.553	
22			.536	
41			.503	
24			.492	
14				.577
32				.518
25				.473

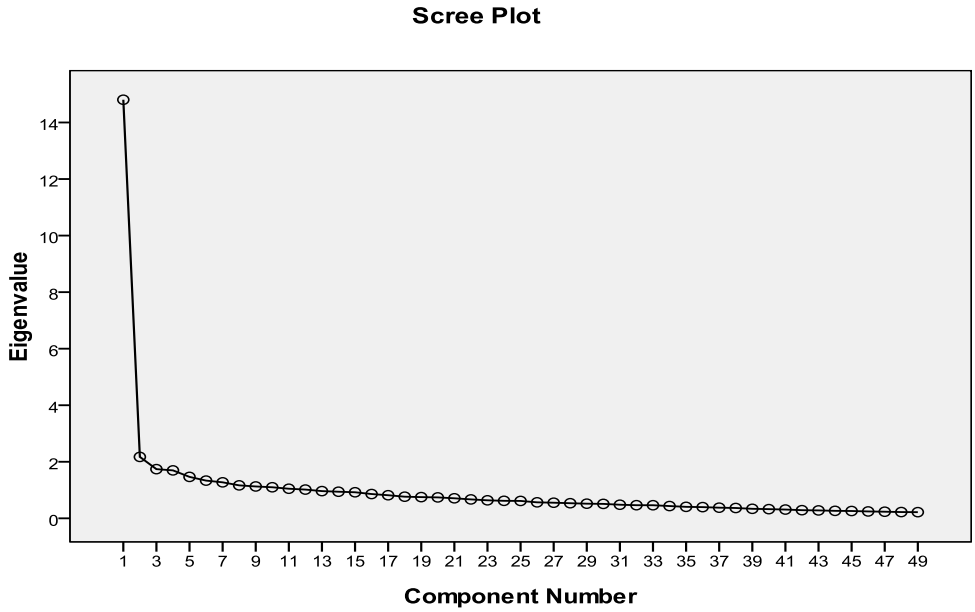
Appendix16 Rotated Factor Matrix of SILL variables

Rotated Factor Matrix of SILL variables			
Items	Factor 1 (FS1)	Factor 2 (FS2)	Factor 3 (FS3)
65	.807		
64	.798		
55	.745		
97	.700		
54	.675		
96	.611		
69	.551		
62	.533		
89	.481		
70	.481		
50	.474		
82	.448		
56	.447		
68	.443		
76	.443		
77		.675	
74		.559	
72		.538	
73		.472	
86			-.730
81			-.727
80			-.611
85			-.572
79			-.502
84			-.496
88			-.479
82			-.472
87			-.460

Appendix17 Scree Plot of the BALLI Items



Appendix18 Scree Plot of the SILL Items



Appendix19 Pearson Correlation Matrix (round 1)

Pearson Correlation Matrix				
	FB1	**FB2**	**FB3**	**FB4**
FS1	-.090	-.463**	.222**	.008
FS2	.239**	-.349**	.069	.151*
FS3	-.213**	.433**	-.189**	.035

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Appendix 20 Pearson Correlation Matrix (round 2)

Pearson Correlation for the Belief and Strategy Factors from the Original Inventory					
	OFB1 Foreign Language Aptitude	**OFB2** The Difficulty of Language Learning	**OFB3** The Nature of Language Learning	**OFB4** Learning and Communication Strategies	**OFB5** Motivations
OFS1 Memory Strategies	.208	.271	.115	.087	.126
OFS2 Cognitive Strategies	.253	.334	.125	.130	.181
OFS3 Compensation Strategies	.196	.230	.144	.160	.176
OFS4 Metacognitive Strategies	.246	.384	.201	.154	.260
OFS5 Affective Strategies	.245	.242	.057	.103	.080
OFS6 Social Strategies	.197	.261	.075	.108	.167

Appendix21 Summary of Responses to Question 48

"What other beliefs about English learning that you hold?"

Items	Number of respondents
A. Blanks and no comments	**156**
. Practices of English Learning	**63**
1. We should learn daily-life English	8
2. English learning is a type of memorization	1
3. We should study hard and persevere learning	27
4. English learning is the learning of the new words and sentence structures	3
5. We should practice our listening and speaking skills	17
6. We should practice our reading skill	1
7. We should practice our four English skills	1
8. We should practice our English pronunciation	2
9. We should mix our old and new English knowledge	2
10. We should practice English in class or after class	1
C. Purpose of English Learning	**90**
1. English learning helps to communicate with foreigners	35
2. After learning English, we become more confident and competitive	14
3. We can understand western culture and history through learning English	5
4. Good English provides us more job opportunities	21
5. After learning English, we can go travelling to those English speaking countries.	2
6. We have to learn English if we hope to study abroad	1
7. We learn English because of job need.	1
8. We can make friends from different cultures after learning English	5
9. English is useful while playing English games or watching English movies.	2
10. English helps us enhance our language ability	1
11. Learning English makes us understand more about English language	2
	1

12. English helps to bridge the relationship between Chinese and non-Chinese	
D. Feelings about English Learning	**16**
1. English learning is a kind of passive learning	1
2. We should avoid using the Chinese meanings	1
3. English is very confusing and difficult	2
4. I am learning the black English (which is thought to be not so standard)	1
5. I feel unconfident when learning English	1
6. I am confident in learning English well	1
7. English learning should start from young age	3
8. School is the best place to learn English	1
9. I feel painful in learning English	1
10. English can be learnt within a short time	2
11. Not everyone can learn English well	1
12. English is much easier than Chinese	1
E. Importance of English Learning	**13**
1. English is world language	4
2. English is important and useful	8
3. English is useful in Macao	1
F. The Need for English Learning	**8**
1. An English speaking environment is very necessary for learning English well	4
2. We should learn English from some of our personal interests	2
3. It takes time to learn English well	1
4. English should be taught by foreigner	1

Appendix22 Summary of Responses to Question 98

"What other strategies about English learning that you have?"

Items	Number of respondents
A. Blanks and no comments	**93**
B. Practice of the four English skills	**67**
1. We should do more English reading	13
2. English speaking and listening are very useful	27
3. We should always have a general English practice	7
4. We should do many exercises on English reading, listening and speaking	6
5. All four skills are important in English learning	11
6. We should imitate how the foreigners speak	2
7. We should pay attention to others' English, including writing and speaking, so we can learn from them.	1
C. Learning English from our interest	**80**
1. We can learning English in the movies (subtitles) and songs (lyrics)	41
2. We can read more newspaper, magazines and books	16
3. I think going to English concert can improve my English	1 3
4. Visiting some of the English websites on Internet helps my English	2
5. Playing English computer games can improve my English	13
6. Enjoying some English TV programs and dramas help our English	1 1
7. Funny English word cards helps a lot in English learning	2
8. Imagination and brainstorming can improve our English	
9. Some interesting activities and games can motivate English learning	

D. Memorize the grammar rules and new words	**32**
1. We have to memorise the grammar rules and new words if we want to learn English well	27
2. Rote learning is the way I learnt English	4
3. We need to recite the English passages before memorize them well.	1
E. Take use of the English environment	**34**
1. We can learn English in our working environment where English is always used.	5
2. We should travel to some English speaking countries.	1
3. Chatting with our foreign colleagues helps to improve our English.	11
4. Studying abroad provides us a better English learning environment.	4
5. Try to make some foreign friends as many as possible, so we have more chances to speak English.	1
6. Take use of all opportunities in using English everyday such as SMS, joking, reading menus and street signs.	12
F. English-Chinese Translation	**7**
1. We should translate English into Chinese if we want to have a better understanding.	3
2. An English-Chinese dictionary is a must because it helps our English comprehension.	4
H. English learning and teaching in and out of the school	**29** 6
1. I think group learning in English class is very effective because classmates can help each other.	5
2. Teachers' teaching plays an important role in English learning. For example, they can force students to use English in class, do some interesting English activities such as role plays.	12
3. Students should pay attention in English class and do their review independently at home.	1
4. I prefer taking English courses beyond school because I can choose some one-to-one English teaching program which I think is more effective to improve	5

	my English.	
5.	Besides the English lectures in school, we should also take some other English classes after school. I think 4 hours weekly is not enough to polish my English.	
I.	**We must hold a positive attitude**	**4**
1.	Being confident in learning English is a kind of strategy as well.	2
2.	We have to relax ourselves when learning English or we will reject what we learn.	1
3.	It takes time to learn English and cannot achieve our learning goal in a very short time. Otherwise we will feel depressed in learning English.	1

Appendix23Frequency of Response, Means and Standard Deviations for BALLI Items

No	Item	1	2	3	4	5	M	SD
14	It is easier for children than adults to learn a foreign language.	56	36	6	2	1	1.55	0.75
15	Some people have a special ability for learning foreign languages.	36	45	15	4	0	1.87	0.83
16	Some languages are easier to learn than others.	21	35	31	10	3	2.38	1.01
17	English is _____. (Choice 1=very easy, Choice 5=very difficult)	2	15	49	25	10	3.25	0.90
18	I believe that I will learn to speak English very well.	7	35	46	10	2	2.66	0.84
19	People in Macao are good at learning foreign languages.	4	13	55	24	5	3.14	0.82
20	It is important to speak English with an excellent pronunciation.	37	44	14	5	1	1.90	0.89
21	It is necessary to know about English-speaking cultures in order to speak English.	7	21	39	26	8	3.08	1.02
22	You shouldn’t say anything in English until you can say it correctly.	5	11	24	36	24	3.63	1.11
23	It is easier for someone who already speaks a foreign language to learn another one.	7	30	38	21	4	2.83	0.96
24	People who are good at mathematics or science are not good at learning foreign languages.	9	13	28	37	12	3.30	1.12
25	It is best to learn English in an English-speaking country.	43	36	15	6	1	1.87	0.95
26	I enjoy practising English with the English-speakers I meet.	9	30	38	15	8	2.83	1.04
27	It’s o.k. to guess if you don’t know a word in English.	11	40	33	13	3	2.57	0.94
28	If someone spent one hour a day	11	32	36	15	6	2.72	1.04

	learning a language, how long would it take them to speak the language very well • (1) less than a year, (2) 1-2 years, (3) 3-5 years, (4) 5-10 years, (5) You will never learn it very well							
29	I have a special ability for learning foreign languages.	6	9	40	29	17	3.43	1.04
30	The most important part of learning a foreign language is learning vocabulary words.	37	44	15	4	0	1.86	0.82
31	It is important to repeat and practise a lot.	57	36	6	1	1	1.53	0.72
32	Women are better than men at learning foreign languages.	16	23	32	21	9	2.85	1.20
33	People in Macao feel that it is important to speak English.	33	40	24	3	1	1.98	0.85
34	I feel timid speaking English with other people	20	33	29	15	3	2.50	1.07
35	If beginning students are permitted to make errors in English, it will be difficult for them to speak correctly later on.	31	40	21	6	2	2.08	0.96
36	The most important part of learning a foreign language is learning the grammar.	22	35	28	11	4	2.41	1.08
37	I would like to learn English so that I can get to know other English speakers better.	16	31	33	18	2	2.59	1.03
38	It is easier to speak than understand a foreign language.	10	28	35	23	5	2.85	1.05
39	It is important to practise with audio-visual learning materials.	20	46	30	3	1	2.19	0.82
40	Learning a foreign language is different from learning other academic subjects.	24	41	28	7	0	2.17	0.88
41	The most important part of learning English is learning how to translate from my native language.	21	31	34	12	2	2.44	1.02

42	If I learn English very well, I will have better opportunities for a good job.	59	28	10	3	0	1.58	0.80
43	People who speak more than one language are very intelligent.	20	31	32	14	4	2.49	1.06
44	I want to learn to speak English well.	57	28	12	2	1	1.62	0.85
45	I would like to have American friends.	31	34	30	5	2	2.13	0.96
46	Everyone can learn to speak a foreign language.	35	32	24	5	4	2.10	1.06
47	It is easier to read and write English than to speak and understand it.	17	30	33	16	4	2.65	1.4

Appendix 24Frequency of Response, Means and Standard Deviations for SILL Items

No	Item	1	2	3	4	5	M	SD
49	I think of relationships between what I have already known and new things I learn in English.	9	23	52	13	3	2.79	0.89
50	I use new English words in a sentence so I can remember them.	7	19	47	22	5	2.98	0.95
51	I connect the sound of a new English word and an image or picture of the word to help me remember the word.	9	30	32	23	7	2.90	1.07
52	I remember a new English word by making a mental picture of a situation in which the word might be used.	7	28	37	23	6	2.92	1.00
53	I use rhymes to remember new English words.	12	36	30	18	5	2.69	1.05
54	I use flashcards to remember new English words.	4	13	25	32	26	3.62	1.12
55	I categorize new English words and remember them.	8	18	30	29	15	3.26	1.15
56	I review English lessons often.	4	11	40	36	9	3.36	0.93
57	I remember new English words or phrases by remembering their location (eg. books, blackboard, a street sign).	10	25	41	16	8	2.85	1.06
58	I say or write new English words several times.	8	20	39	25	8	3.06	1.04
59	I try to talk like native English speakers.	8	20	38	24	11	3.10	1.09
60	I practise the sounds of English.	10	26	40	19	6	2.84	1.02
61	I use the English words I know in different ways.	10	24	42	18	6	2.86	1.03
62	I start conversations in English.	5	15	39	29	12	3.27	1.02
63	I watch English language TV shows spoken in English or go to movies spoken in English.	15	28	40	13	4	2.64	1.03
64	I read for pleasure in English.	6	10	24	41	19	3.55	1.09
65	I write notes, letters, or reports in English.	5	10	28	38	20	3.58	1.05

66	I first skim an English passage (read over the passage quickly) then go back and read carefully.	8	28	36	20	8	2.92	1.07
67	I look for words in my own language that are similar to new words in English in terms of their sounds and meanings.	9	21	40	21	9	3.00	1.07
68	I try to find sentence patterns in English.	6	20	39	26	9	3.12	1.02
69	I find the meaning of an English word by dividing it into parts that I understand.	7	32	33	19	9	2.90	1.07
70	I try not to translate word-for-word.	8	21	44	18	9	2.99	1.03
71	I make summaries of information that I hear or read in English.	8	22	41	21	8	3.00	1.03
72	To understand unfamiliar English words, I make guesses.	17	38	35	9	1	2.41	0.92
73	When I can’t think of a word during a conversation in English, I use gestures.	21	30	32	13	4	2.49	1.08
74	I make up new words if I do not know the right ones in English (e.g. air ball—balloon).	19	25	32	17	7	2.76	2.00
75	I read English without looking up every new word.	11	24	44	14	7	2.82	1.03
76	I try to guess what the other person will say next in English.	6	23	33	26	13	3.17	1.09
77	If I can’t think of an English word, I use a word or phrase that means the same thing.	16	36	33	12	3	2.50	1.00
78	I try to find as many ways as I can to use my English.	14	26	42	16	3	2.70	0.98
79	I notice my English mistakes and use that information to help me do better.	11	27	41	18	4	2.77	1.00
80	I pay attention when someone is speaking English.	15	38	36	10	2	2.47	0.92
81	I try to find out how to be a better learner of English.	13	35	38	11	3	2.56	0.94
82	I plan my schedule so I will have enough time to study English.	9	12	32	36	12	3.30	1.10
83	I look for people I can talk to in English.	6	21	34	27	12	3.17	1.08

84	I look for opportunities to read as much as possible in English.	6	15	39	32	9	3.22	1.00
85	I have clear goals for improving my English skills.	8	20	39	26	8	3.06	1.04
86	I think about my progress in learning English.	10	24	45	17	5	2.82	0.98
87	I try to relax whenever I feel afraid of using English.	14	28	35	17	6	2.72	1.08
88	I encourage myself to speak English even when I am afraid of making a mistake.	10	26	40	18	6	2.83	1.03
89	I give myself a reward or treat when I do well in English.	10	21	36	21	13	3.08	1.15
90	I notice if I am tense or nervous when I am studying or using English.	9	21	34	26	11	3.09	1.12
91	I will talk to someone else about how I feel about learning English.	10	24	30	21	15	3.07	1.20
92	If I do not understand something in English, I ask the other person to slow down or say it again.	18	39	32	8	4	2.41	0.98
93	I ask English speakers to correct me when I talk.	11	27	34	19	10	2.89	1.12
94	I practise English with other students.	8	17	40	25	10	3.10	1.06
95	I ask for help from English speakers.	13	26	36	19	6	2.80	1.08
96	I ask questions in English.	6	19	41	26	8	3.12	1.00
97	I try to learn about English-speaking culture.	12	18	30	25	15	3.15	1.22

Appendix 25 The Original Inventory Categories of BALLI by Horwitz

Belief Group 1 (OFB1) Foreign Language Aptitude								
No	**Item**	**1**	**2**	**3**	**4**	**5**	**M**	**SD**
14	It is easier for children than adults to learn a foreign language.	56	36	6	2	1	1.55	0.75
15	Some people have a special ability for learning foreign languages.	36	45	15	4	0	1.87	0.83
19	People in Macao are good at learning foreign languages.	4	13	55	24	5	3.14	0.82
23	It is easier for someone who already speaks a foreign language to learn another one.	7	30	38	21	4	2.83	0.96
24	People who are good at mathematics or science are not good at learning foreign languages.	9	13	28	37	12	3.30	1.12
29	I have a special ability for learning foreign languages.	6	9	40	29	17	3.43	1.04
32	Women are better than men at learning foreign languages.	16	23	32	21	9	2.85	1.20
43	People who speak more than one language are very intelligent.	20	31	32	14	4	2.49	1.06
46	Everyone can learn to speak a foreign language.	35	32	24	5	4	2.10	1.06
Belief Group 2 (OFB2) **The Difficulty of Language Learning**								
No	**Item**	**1**	**2**	**3**	**4**	**5**	**M**	**SD**
16	Some languages are easier to learn than others.	21	35	31	10	3	2.38	1.01
17	English is _____.(Choice 1=very easy, Choice 5=very difficult)	2	15	49	25	10	3.25	0.90
18	I believe that I will learn to speak English very well.	7	35	46	10	2	2.66	0.84
28	If someone spent one hour a day learning a language, how long would it take them to speak the language very well • (1) less than a year, (2) 1-2 years, (3) 3-5 years, (4) 5-10	11	32	36	15	6	2.72	1.04

	years, (5) You will never learn it very well							
38	It is easier to speak than understand a foreign language.	10	28	35	23	5	2.85	1.05
47	It is easier to read and write English than to speak and understand it.	17	30	33	16	4	2.65	1.46
Belief Group 3 (OFB3) **The Nature of Language Learning**								
No	**Item**	**1**	**2**	**3**	**4**	**5**	**M**	**SD**
21	It is necessary to know about English-speaking cultures in order to speak English.	7	21	39	26	8	3.08	1.02
25	It is best to learn English in an English-speaking country.	43	36	15	6	1	1.87	0.95
30	The most important part of learning a foreign language is learning vocabulary words.	37	44	15	4	0	1.86	0.82
36	The most important part of learning a foreign language is learning the grammar.	22	35	28	11	4	2.41	1.08
40	Learning a foreign language is different from learning other academic subjects.	24	41	28	7	0	2.17	0.88
41	The most important part of learning English is learning how to translate from my native language.	21	31	34	12	2	2.44	1.02
Belief Group 4 (OFB4) **Learning and Communication Strategies**								
20	It is important to speak English with an excellent pronunciation.	37	44	14	5	1	1.90	0.89
22	You shouldn't say anything in English until you can say it correctly.	5	11	24	36	24	3.63	1.11
26	I enjoy practising English with the English-speakers I meet.	9	30	38	15	8	2.83	1.04
27	It's o.k. to guess if you don't know a word in English.	11	40	33	13	3	2.57	0.94
31	It is important to repeat and practise a lot.	57	36	6	1	1	1.53	0.72
34	I feel timid speaking English with other people	20	33	29	15	3	2.50	1.07

35	If beginning students are permitted to make errors in English, it will be difficult for them to speak correctly later on.	31	40	21	6	2	2.08	0.96
39	It is important to practise with audio-visual learning materials.	20	46	30	3	1	2.19	0.82
Belief Group 5 (OFB5) **Motivation**								
33	People in Macao feel that it is important to speak English.	33	40	24	3	1	1.98	0.85
37	I would like to learn English so that I can get to know other English speakers better.	16	31	33	18	2	2.59	1.03
42	If I learn English very well, I will have better opportunities for a good job.	59	28	10	3	0	1.58	0.80
44	I want to learn to speak English well.	57	28	12	2	1	1.62	0.85
45	I would like to have American friends.	31	34	30	5	2	2.13	0.96

Appendix 26 The Original Inventory Categories of SILL by Oxford

Strategy Group 1(OFS1) **Memory Strategies**								
49	I think of relationships between what I have already known and new things I learn in English.	9	23	52	13	3	2.79	0.89
50	I use new English words in a sentence so I can remember them.	7	19	47	22	5	2.98	0.95
51	I connect the sound of a new English word and an image or picture of the word to help me remember the word.	9	30	32	23	7	2.90	1.07
52	I remember a new English word by making a mental picture of a situation in which the word might be used.	7	28	37	23	6	2.92	1.00
53	I use rhymes to remember new English words.	12	36	30	18	5	2.69	1.05
54	I use flashcards to remember new English words.	4	13	25	32	26	3.62	1.12
55	I categorize new English words and remember them.	8	18	30	29	15	3.26	1.15
56	I review English lessons often.	4	11	40	36	9	3.36	0.93
57	I remember new English words or phrases by remembering their location (eg. books, blackboard, a street sign).	10	25	41	16	8	2.85	1.06
Strategy Group 2(OFS2) **Cognitive Strategies**								
58	I say or write new English words several times.	8	20	39	25	8	3.06	1.04
59	I try to talk like native English speakers.	8	20	38	24	11	3.10	1.09
60	I practise the sounds of English.	10	26	40	19	6	2.84	1.02
61	I use the English words I know in different ways.	10	24	42	18	6	2.86	1.03
62	I start conversations in English.	5	15	39	29	12	3.27	1.02
63	I watch English language TV shows spoken in English or go to movies spoken in English.	15	28	40	13	4	2.64	1.03
64	I read for pleasure in English.	6	10	24	41	19	3.55	1.09
65	I write notes, letters, or reports in English.	5	10	28	38	20	3.58	1.05
66	I first skim an English passage (read over the	8	28	36	20	8	2.92	1.07

	passage quickly) then go back and read carefully.							
67	I look for words in my own language that are similar to new words in English in terms of their sounds and meanings.	9	21	40	21	9	3.00	1.07
68	I try to find sentence patterns in English.	6	20	39	26	9	3.12	1.02
69	I find the meaning of an English word by dividing it into parts that I understand.	7	32	33	19	9	2.90	1.07
70	I try not to translate word-for-word.	8	21	44	18	9	2.99	1.03
71	I make summaries of information that I hear or read in English.	8	22	41	21	8	3.00	1.03
Strategy Group 3(OFS3) Compensation Strategies								
72	To understand unfamiliar English words, I make guesses.	17	38	35	9	1	2.41	0.92
73	When I can't think of a word during a conversation in English, I use gestures.	21	30	32	13	4	2.49	1.08
74	I make up new words if I do not know the right ones in English (e.g. air ball—balloon).	19	25	32	17	7	2.76	2.00
75	I read English without looking up every new word.	11	24	44	14	7	2.82	1.03
76	I try to guess what the other person will say next in English.	6	23	33	26	13	3.17	1.09
77	If I can't think of an English word, I use a word or phrase that means the same thing.	16	36	33	12	3	2.50	1.00
Strategy Group 4(OFS4) Metacognitive Strategies								
78	I try to find as many ways as I can to use my English.	14	26	42	16	3	2.70	0.98
79	I notice my English mistakes and use that information to help me do better.	11	27	41	18	4	2.77	1.00
80	I pay attention when someone is speaking English.	15	38	36	10	2	2.47	0.92
81	I try to find out how to be a better learner of English.	13	35	38	11	3	2.56	0.94
82	I plan my schedule so I will have enough time to study English.	9	12	32	36	12	3.30	1.10
83	I look for people I can talk to in English.	6	21	34	27	12	3.17	1.08
84	I look for opportunities to read as much as possible	6	15	39	32	9	3.22	1.00

	in English.							
85	I have clear goals for improving my English skills.	8	20	39	26	8	3.06	1.04
86	I think about my progress in learning English.	10	24	45	17	5	2.82	0.98
Strategy Group 5(OFS5) **Affective Strategies**								
87	I try to relax whenever I feel afraid of using English.	14	28	35	17	6	2.72	1.08
88	I encourage myself to speak English even when I am afraid of making a mistake.	10	26	40	18	6	2.83	1.03
89	I give myself a reward or treat when I do well in English.	10	21	36	21	13	3.08	1.15
90	I notice if I am tense or nervous when I am studying or using English.	9	21	34	26	11	3.09	1.12
91	I will talk to someone else about how I feel about learning English.	10	24	30	21	15	3.07	1.20
Strategy Group 6(OFS6) **Social Strategies**								
92	If I do not understand something in English, I ask the other person to slow down or say it again.	18	39	32	8	4	2.41	0.98
93	I ask English speakers to correct me when I talk.	11	27	34	19	10	2.89	1.12
94	I practise English with other students.	8	17	40	25	10	3.10	1.06
95	I ask for help from English speakers.	13	26	36	19	6	2.80	1.08
96	I ask questions in English.	6	19	41	26	8	3.12	1.00
97	I try to learn about English-speaking culture.	12	18	30	25	15	3.15	4.1