

Relationships between Macao University Students' Beliefs and Their

Strategy Use in Language Learning

Wai Sa Ip

(Department of General Education, Macau University of Science and Technology, Macau)

Abstract: This study used a mixed method approach to investigate the beliefs about language learning of Macao tertiary students studying English, the language learning strategies these students use to learn English, and the relationships between their language learning beliefs and the strategies they use. Findings indicated that Macao students who believe that language learning is difficult tend to use cognitive, metacognitive and compensation strategies, while those who believe that a language is best learnt through communication tend not to use memory strategies. In addition, students who believe that English is best learnt in an English-speaking country, that vocabulary learning is the most important in English learning, and that their confidence with English would increase over time tend to use affective and social strategies, while those students who are more motivated to learn English are more likely to use metacognitive strategies but fewer affective strategies. This study contributed knowledge about relationships between university students' beliefs and their strategy use, which helps raise language lecturers' attention on students' learning beliefs especially when students are expected to be shaped as strategic language learners.

Key words: L2 learning, mixed method approach, learning beliefs, learning strategies

1. Introduction

Research on secondary language education has reported that learners' preconceived beliefs about language learning could play an essential role in learners' effective learning, especially their strategic language learning (Abraham & Vann, 1987; Breen 2014; Horwitz 1987, 1988). Some preconceived learning beliefs were likely to hinder learners' range of strategy use (Horwitz, 1988; Tang & Tian, 2015; Yang, 1999) because 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 (Biggs', 1993, 1996; Park, 1997; Rao, 2012; Griffiths, 2013). Moreover, students' beliefs about language learning, and their consequent selection of language learning strategies, have been shown to have had a measurable impact on language proficiency (Gao, 2010; Park, 1995; Yang, 1992).

Recent research by the Macao New Chinese Youth Association (2011), which aimed to investigate the English level of the Macao tertiary students, provided evidence of Macao students' unsatisfactory English proficiency outcomes. For this reason, it is arguably worthwhile to conduct similar research in Macao as a means

Wai Sa Ip, Assistant Professor, Department of General Education, Macau University of Science and Technology; research areas/interests: second language learning and teaching, bilingual education, teaching English to speakers of other languages (TESOL), professional English teaching. E-mail: wsip@must.edu.mo.

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 university students in Macao?

(2) What English learning strategies are commonly used by university students in Macao?

(3) How are Macao university students' beliefs about language learning related to their use of language learning strategies?

2. Literature Review

2.1 Language Learning Strategies

The origins of research on language learning strategies (LLS) 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 (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 age (Griffiths, 2013; Magogwe & Oliver, 2007; Tragant & Victori, 2012), gender (Abbasian, Khajavi & Mardani, 2012; Cohen, 2014; Ehrman & Oxford, 1989; El-Dib, 2004; Green & Oxford, 1995; Gu, 2002; Mercer, Ryan, & Williams, 2012; Osanai, 2000; Oxford & Nyikos, 1989; Vandergriff, 1997), personality (Digman, 1990; Ehrman, 2008; Griffiths, 2013; Liyanage, 2004; Vermettena, Lodewijks & Vermunt, 2001), learning styles (Ehrman & Oxford, 1990; Lujan & Di Carlo, 2006; Willing, 1994, 1998; Wong & Nunan, 2011), motivation (Banisaeid & Huang, 2015; Dörnyei, 2012; Ehrman & Oxford, 1989; Noels et al., 2000; Oxford & Nyikos, 1989; Prokop, 1989; Schmidt & Watanabe, 2001; Tang & Tian, 2015; Teh, Embi, Yusoff & Mahamod, 2009; Wharton, 2000), language proficiency (Chesterfield & Chesterfield, 1985; Green & Oxford, 1995; Khosravi, 2012; MacIntyre, 1994; Oxford & Nyikos, 1989; Pan, 2005; Park, 1997; Zhong, 2015), cultural background (Chamot, 2004; Donato & McCormick 1994; Grainger, 1997; Griffiths, 2003; Griffiths & Parr, 2000; Mullins, 1992; Oxford & Burry-Stock, 1995; Phillip, 1991; Politzer & McGroarty, 1985; Rao, 2006; Reid, 1987; Wharton, 2000; Wu, 2008), career orientation (Ehrman & Oxford, 1989), study programs (Gu, 2002; Oxford & Nyikos, 1989; Peacock & Ho, 2003; Politzer & McGroarty, 1985; Reid, 1987), and belief (Benson & Lor, 1999; Bernat, 2004; Griffiths, 2013; Horwitz, 1987, 1988, 2008; Loewen et al., 2009; Nikitina & Furuoka, 2006; Suwanarak, 2012; Wenden, 1986a, 1987a, 1999; Yang, 1992, 1999; Zimmerman, Bandura & Martinez-Pons, 1992) which is also the main focus in this study.

2.2 Language Learning Beliefs

Since the 1970s, researchers have increasingly focused on students' language learning belief (Ellis, 1999; Griffiths, 2013; Horwitz, 1987, 1988, 2008; Loewen et al., 2009; Nikitina & Furuoka, 2006; Suwanarak, 2012),

one of the influential variables that affect students' strategy use in language learning. Language learning belief is considered an important factor affecting 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. Horwitz (1987) pointed out that previous learning experiences and cultural background significantly influence language learner beliefs about language learning. Horwitz 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. In addition, learner beliefs are related to metacognitive knowledge as it constitutes their theories in action that help them to reflect on what they are doing and to develop their potential for learning (Wenden, 1999). Learner beliefs are also recognised as part of students' experiences interrelated with their environment and so they can be characterised as contextual, dynamic and social (Cephe & Yalcin, 2015; Ellis, 1999; Riley, 1994).

The characteristics of beliefs about language learning 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.

2.3 Language Learning 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). 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). It has become 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).

3. Methodology

3.1 Participants

A total of 346 students of Macau University of Science and Technology (MU), comprising 208 males and 138 females participated in this study. The students ranged in age from 17 to 24 and they were all first-year undergraduates studying in different Schools at MU. Within this cohort, 12 volunteer students participated in the interviews. Each of the students had a face-to-face interview with the researcher to explain their responses in the questionnaire survey. In order to further interpret the questionnaire survey results, 5 English lecturers at MU, including 1 male and 4 female lecturers, were invited to participate in the interviews.

3.2 Instruments

The two original instruments employed in this study were designed by Horwitz (1987) and Oxford (1990) respectively. 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 34 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 is in 5-point Likert scale which allowed the students to express how often they agreed or disagreed with the statements of belief in language learning.

Another instrument used 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 50 items which are grouped into six strategy categories: memory strategies, cognitive strategies, compensatory strategies, metacognitive strategies, affective strategies and social strategies. The SILL is in 5-point Likert scale, allowing the students to express how frequently they really used the language learning strategies that listed on the questionnaire.

3.3 Data Collection

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 relationships between their beliefs and strategy use. A total of 346 first-year undergraduates and 5 English lecturers participated in both the quantitative and the qualitative phases. In the quantitative phase, the questionnaire derived from the BALLI and the SILL were used to investigate students' beliefs and strategy use in English learning, as well as the relationships between these. In the qualitative phase, during interviews, a selection of both students and lecturers explained their response to the questionnaire.

3.4 Data Analysis

In this research, the quantitative survey data collected through the questionnaire underwent descriptive 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. The qualitative data of the interviews help to explain the quantitative results, that is, the relationships between students' beliefs and strategy use in English learning.

4. Results

4.1 Macao Tertiary Students' Common Beliefs about Language Learning

The results the BALLI questionnaire indicates that most students share a limited set of similar beliefs about learning English. Table 1 shows that 92% of the students agreed that it is easier for children to learn a foreign language than an adult and 81% of the students responded positively to the statement that some people have special abilities for learning foreign languages. In addition, 78% of the students believed that it is best to learn English in an English-speaking country while 81% of them supported that vocabulary learning is the most important aspect of learning English. Furthermore, 93% of them support the statement that repetition and practice are important strategies for learning English. The majority of students also prioritize pronunciation in speaking

English, with 81% of the students identifying excellent pronunciation as the most important goal of English learning. Around 85% of the students reported that they wanted to speak English well while 87% of them recognized the value of English for increasing job opportunities in Macao.

Table 1 also 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 the statement that Macao people are good at learning foreign languages and no more than 15% of them believed that they themselves had a special ability for learning foreign languages. Only around 17% of the students thought 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.

4.2 Macao Tertiary Students' Common Strategies Used in Language Learning

The analysis of Macao tertiary students' responses to the SILL 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.

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 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 Language Learning Common 25 I have a special ability for learning foreign language is learning vocabulary words. 37 44 15 4 0 1.87 0.89 Common 20 I to is important to speak English with an excellent 37 44 14 5 1 1.90 0.89 Indifficulty of language learning Less co	Table 1 Percentage of Responses, Means and Standard Deviations for Salient BALLI flems										
Foreign Language Aptitude 14 language. is possible in Macao are good at learning foreign inguages. 36 36 6 2 1 1.5.5 0.75 Some people have a special ability for learning foreign inguages. 36 45 15 4 00 1.87 0.83 Less common People in Macao are good at learning foreign inguages. 4 13 55 24 5 3.14 0.83 The Nature of Language Learning People in Macao are good at learning foreign inguages. 4 13 55 24 5 3.14 0.82 The Nature of Language Learning People in Macao are good at learning foreign inguages. 4 13 55 24 5 3.14 0.82 The Nature of Language Learning People in most important part of learning a foreign inguage is learning vocabulary words. 37 44 14 5 1 1.90 0.89 Profounciation. 57 36 6 1	Types of beliefs		No	Items	1	2	3	4	5	М	SD
Foreign Language Aptitude15Some people have a special ability for learning foreign languages.364515401.870.83Less common19People in Macao are good at learning foreign languages.413552453.140.82The Nature of Language Learning29I have a special ability for learning foreign languages.694029173.431.04The Nature of Language Learning25It is best to learn English in an English-speaking language is learning vocabulary words.364415401.870.95Method Learning20It is important to speak English with an excellent pronunciation.374414511.900.89Learning and Common22You shouldn't say anything in English until you can asy it correctly.57366111.530.72The difficulty of language learningLess common17English is: (1= very easy, 5 = very difficult)2154925103.250.90Motivation and expectations42If I learn English very well, I will have better opportunities for a good job.5928103301.580.80		Common	14		56	36	6	2	1	1.55	0.75
AptitudeLess common19People in Macao are good at learning foreign languages.413552453.140.8229I have a special ability for learning foreign Language Learning694029173.431.04The Nature of Language LearningLearning25It is best to learn English in an English-speaking country433615611.870.9530The most important part of learning a foreign language is learning vocabulary words.374415401.860.82Learning and CommonCommon20It is important to speak English with an excellent pronunciation.374414511.900.89The difficulty of language learning22You shouldn't say anything in English until you can say it correctly.5102436243.631.11The difficulty of language learningLess common17English is: (1= very easy, 5 = very difficult)2154925103.250.90Motivation and expectations42If I learn English very well, I will have better opportunities for a good job.592810301.580.80	0	Common	15		36	45	15	4	0	1.87	0.83
$\frac{29}{\text{languages.}} = \frac{29}{\text{languages.}} = \frac{1}{10000000000000000000000000000000000$	0 0	Less	19		4	13	55	24	5	3.14	0.82
Ine Nature of Language Learning2.5 $country$ $country$ $abcabcabcbb11.870.95LearningCommon30The most important part of learning a foreignlanguage is learning vocabulary words.374415401.860.82Learning andCommon20It is important to speak English with an excellentpronunciation.374414511.900.89Learning andCommon20It is important to speak English with an excellentpronunciation.374414511.900.89Learning20It is important to repeat and practise a lot.57366111.530.72The difficulty oflanguagelearningLesscommon22You shouldn't say anything in English until you cansay it correctly.5102436243.631.11The difficulty oflanguagelearningLesscommon22You shouldn't say anything in English until you cansay it correctly.2154925103.250.90Motivation andexpectations20If I learn English very well, I will have betteropportunities for a good job.2810301.580.80$		common	29		6	9	40	29	17	3.43	1.04
Learning30The most important part of learning a foreign language is learning vocabulary words.374415401.860.82Learning and CommonCommon20It is important to speak English with an excellent pronunciation.374414511.900.89Learning and Common20It is important to speak English with an excellent pronunciation.37366111.530.72Method language learning22You shouldn't say anything in English until you can say it correctly.5102436243.631.11Motivation and expectationsLess common17English is: (1= very easy, 5 = very difficult)2154925103.250.90Motivation and expectations42If I learn English very well, I will have better opportunities for a good job.2810301.580.80		Common	25		43	36	15	6	1	1.87	0.95
Learning and CommonCommonInterpretation of production.Interpretation of production.Interpretation. <thinterpretation.< th="">Interpretation.<td>0 0</td><td>30</td><td></td><td>37</td><td>44</td><td>15</td><td>4</td><td>0</td><td>1.86</td><td>0.82</td></thinterpretation.<>	0 0		30		37	44	15	4	0	1.86	0.82
CommunicationS1It is important to repeat and practise a lot.S7S66111.530.72Less common22You shouldn't say anything in English until you can say it correctly.5102436243.631.11The difficulty of language learningLess common17English is: (1= very easy, 5 = very difficult)2154925103.250.90Motivation and expectations24If I learn English very well, I will have better opportunities for a good job.2810301.580.80		Common	20		37	44	14	5	1	1.90	0.89
Less common22You shouldn't say anything in English until you can say it correctly.5102436243.631.11The difficulty of language learningLess common17English is: (1= very easy, 5 = very difficult)2154925103.250.90Motivation and expectations2042If I learn English very well, I will have better opportunities for a good job.592810301.580.80			31	It is important to repeat and practise a lot.	57	36	6	1	1	1.53	0.72
language learningLess common17English is: (1= very easy, 5 = very difficult)2154925103.250.90Motivation and expectationsCommon42If I learn English very well, I will have better opportunities for a good job.592810301.580.80			22		5	10	24	36	24	3.63	1.11
Motivation and expectations Common 42 opportunities for a good job. 59 28 10 5 0 1.58 0.80	language Less 17 Er		17	English is: (1= very easy, 5 = very difficult)		15	49	25	10	3.25	0.90
expectations 44 I want to learn to speak English well 57 28 12 2 1 162 0.85		Common	42		59	28	10	3	0	1.58	0.80
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	expectations		44	I want to learn to speak English well.	57	28	12	2	1	1.62	0.85

Table 1 Percentage of Responses, Means and Standard Deviations for Salient BALLI Items

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

As shown in Table 2, in terms of the Memory Strategies category, Macao tertiary students tend to memorize English words based on rhymes, rather than drawing on other learning tools such as flashcards. In addition, the students are unlikely to memorize 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. 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 2, about 43% of the students often learn English by watching English television programmes and movies, in order to practice 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.

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 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 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.

		recentage of Kesponses, Means and Standard Deviations for Sanent SILL ftems								
Types of strategies		No	Item		23		4 5	5	Μ	SD
	Common	53	I use rhymes to remember new English words.			30	18	5	2.69	1.05
Memory Strategies	Less common	54	4 I use flashcards to remember new English words.				32	26	3.62	1.12
		56	I review English lessons often.	4	11	40	36	9	3.36	0.93
	Common	63	I watch English language TV shows spoken in English or go to movies spoken in English.				13	4	2.64	1.03
Cognitive	-	62	I start conversations in English.				29	12	3.27	1.02
Strategies	Less common	64	4 I read for pleasure in English.				41	19	3.55	1.09
		65	I write notes, letters, or reports in English.	5	10	28	38	20	3.58	1.05
	Common	72	2 To understand unfamiliar English words, I make guesses.			35	9	1	2.41	0.92
Compensation		73	73 When I can't think of a word during a conversation in English, I use gestures.		30	32	13	4	2.49	1.08
Strategies		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
	Common	78	I try to find as many ways as I can to use my English.				16	3	2.70	0.98
Metacognitive Strategies		80	I pay attention when someone is speaking English.			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.			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

Table 2	Percentage of Responses,	, Means and Standard Deviations for Salient SILL Items	
---------	--------------------------	--	--

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

4.3 Rel ationships between Mac ao Tertiary Students' Bel iefs about the Lea rning of English and the Strategies They Use to Learn English

Table 3 shows fairly weak to modest but positive correlations between the students' beliefs about language learning and the language learning strategies they use. Generally, the correlation shows that students with beliefs about aptitude for learning a foreign language (B1) and the difficulty of learning English (B2) tend to use all six types of learning strategies, including social strategies. Apart from the positive moderate correlation between the beliefs about motivation (B5) and the metacognitive strategies (S4), the two categories of belief about learning and communication strategies (B4) and beliefs about motivation and expectations (B5) have very weak correlations with all the learning strategies.

Comparatively, students with beliefs clustered in B2 seem to be more strategic in their learning of English. Two salient positive correlations of this group are shown in Table 3. They are the correlation between B2 and S2 (r = .334), and the correlation between B2 and S4 (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.

Table 3 also shows that B2 is correlated with S3 (r = .230), which means that students who believe that language learning is difficult are likely to use compensation strategies.

	Table 5 Tearson Correlation between benefs and Strategy Use						
	B1 Beliefs about foreign language aptitude	B2 Beliefs about the difficulty of language learning	B3 Beliefs about the nature of language learning	B4 Beliefs about learning and communication strategies	B5 Beliefs about motivation and expectations		
S1 Memory strategies	.208	.271	.115	.087	.126		
S2 Cognitive strategies	.253	.334	.125	.130	.181		
S3 Compensation strategies	.196	.230	.144	.160	.176		
S4 Metacognitive strategies	.246	.384	.201	.154	.260		
S5 Affective strategies	.245	.242	.057	.103	.080		
S6 Social strategies	.197	.261	.075	.108	.167		

 Table 3
 Pearson Correlation between Beliefs and Strategy Use

In addition, two salient relations can also be found between the use of affective strategies and the cluster of beliefs in B1 (r = .245) and in B2 (r = .242). It shows that students who believe in one's innate language learning aptitude or students who believe in learning an additional language is difficult tend to use affective strategies.

Moreover, some very weak correlations are found between B3 and B4, and the six learning strategies, such as the correlations between B3 and S5 (r = .057), B3 and S6 (r = .075), B4 and S1 (r = .087) and B5 and S5 (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 fewer affective strategies

The abovementioned results of the Pearson Correlation Analysis in relation to the third research question addressed by this study can be summarized 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.

These seven correlation results are further explained by drawing on the student and lecturer responses during interviews. The responses of the students and lecturers to these seven results were used to explain the relationships between language learning beliefs and language learning strategies derived from the quantitative phase of the study.

4.3.1 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 students' experience in learning English.

Student: 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.....

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' awareness of metacognitive strategies and their level in learning English.

Lecturer 1:for metacognitive strategies, it depends on their awareness of language learning...In my experience, many students may not know what metacognitive strategies are.

Lecturer 2:when students get better in English learning with more approaches to learn a language.....metacognitive strategies are used. So I think this relation depends very much on students' English level.

4.3.2 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 and the big gap between the English leaning contexts in secondary schools and in universities.

Student: Macao 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.

Lecturer: after coming to the university context where they [students] have to use English to learn other subjects rather than just learning a language..... and compensation strategies are always employed.

4.3.3 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.

Student: 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.

From the point of view of the lecturers, 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.

Lecturer:When students are aware of these strategies and understand the advantages of these strategies, they are more willing to employ them.

4.3.4 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.

Student 1:So they might need affective strategies to encourage themselves to go forward along the learning path especially while the difficulty is met.

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.

Student 2: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.

From the lecturers' points of view, the use of social strategies is more closely associated with students' personalities or characters, and so it is possible that confident students in learning English do not tend to use social strategies.

Lecturer:while the social strategies depend on the students' characters.....if they are very confident but very shy, they still will not use the social strategies.

4.3.5 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.

Student:This group of students has seen English communication as the most important part of learning English.....communication needs real dialogue practice rather than memorization.

Lecturer:they think memorizing vocabulary and grammatical rules are meaningless and unnecessary in language learning because language must be put into real use.

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

According to the students, motivated students are more likely to learn in a pro-active way, affective strategies seem to be unnecessary for them.

Student: They are very good at and confident in learning English. So psychological comfort might not be so necessary 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.

Lecturer: If they are motivated [intrinsically motivated], they will use more affective strategies.

4.3.7 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.

Student 1: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.

Student 2: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.

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.

Lecturer:If they have metacognitive awareness, and they apply it frequently, they definitely will use it more.

In the interviews, students and lecturers made comments on the seven correlations. They pointed out some potential reasons for the formation of the correlations of the questionnaire survey.

5. Discussion

Macao tertiary students are not confident in their own language ability, which lessens their confidence in learning English successfully in Macao. 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; Gao, 2010; Noels, Pelletier, Clement & Vallerand, 2000). Encouragingly, students with extrinsic motivation learn more effectively 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).

The results show that Macao tertiary students do not pay great attention to practicing 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 because the most common English assessment in schools and universities is based on written examinations, which include both reading comprehension and essay writing.

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 focus 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 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).

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. 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 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 second language (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.

6. Conclusion

This study achieves its purpose in investigating Macao tertiary students' beliefs about learning English, their strategy use in learning English, and the relationships between their beliefs and strategy use 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 their unawareness of language learning strategies. The complicated and contradictory relationships found in this study, to a certain extent, are arguably caused not simply pedagogically but also psychologically. Therefore, students' affective factors and their past language learning experience ought not to be ignored during the process of teaching strategic learning.

References

Abbasian R., Khajavi Y. and Mardani A. (2012). "Language learning strategies of Iranian EFL learners: Are gender and educational level important", *Academic Research International*, Vol. 3, No. 2, pp. 350–356.

- Abraham R. G. and Vann R. J. (1987). "Strategies of two language learners: A case study", in: A. L. Wenden & J. Rubin (Eds.), *Learner Strategies in Language Learning*, Englewood Cliffs, NJ: Prentice-Hall, pp. 85–102.
- Banisaeid M. and Huang J. (2015). "The role of motivation in self-regulated learning and language learning strategy: In the case of Chinese EFL learners", *International Journal of Applied Linguistics & English Literature*, Vol. 4, No. 5, pp. 36–43.
- Benson P. and Lor W. (1999). "Conceptions of language and language learning", System, Vol. 27, No. 4, pp. 459–472.
- Bernat E. (2004). "Investigating Vietnamese ESL learners' beliefs about language learning", EA Journal, Vol. 21, No. 2, pp. 40-54.
- Bernat E. and Gvozdenko I. (2005). "Beliefs about language learning: Current knowledge, pedagogical implications, and new research directions", *TESL-EJ*, Vol. 9, No. 1, pp. 1–21.
- Bialystok E. (1979). "The role of conscious strategies in second language proficiency", *Canadian Modern Language Review*, Vol. 35, pp. 372–394.
- Biggs J. B. (1993). "What do inventories of students' learning processes really measure? A theoretical review and clarification", *British Journal of Educational Psychology*, Vol. 63, pp. 3–19.
- Biggs J. B. (1996). "Enhancing teaching through constructive alignment", Higher Education, Vol. 32, pp. 1–18.
- Breen M. P. (Ed.) (2014). Learner Contributions to Language Learning: New Directions in Research, New York: Routledge.
- Bruen J. (2001). "Strategies for success: Profiling the effective learner of German", *Foreign Language Annals*, Vol. 34, No. 3, pp. 216–225.
- Cephe P. T. and Yalcin C. G. (2015). "Beliefs about foreign language learning: The effects of teacher beliefs on learner beliefs", *Anthropologist*, Vol. 19, No. 1, pp. 167–173.
- Chamot A. U. (2004). "Issues in language learning strategy research and teaching", *Electronic Journal of Foreign Language Teaching*, Vol. 1, pp. 14–16.
- Chesterfield R. and Chesterfield K. B. (1985). "Natural order in children's use of second language learning strategies", *Applied Linguistics*, Vol. 6, pp. 45–59.
- Cohen A. D. (1998). Strategies in Learning and Using Second Language, Harlow: Longman.
- Cohen A. D. (2007). "Coming to terms with language learner strategies: Surveying the experts", in: A. D. Cohen & E. Macaro (Eds.), Language Learner Strategies: 30 Years of Research and Practice, Oxford, UK: Oxford University Press, pp. 29–45.
- Cohen A. D. (2012). "Strategies: The interface of styles, strategies, and motivation on tasks", in: S. Mercer, S. Ryan & M. Williams (Eds.), *Psychology for Language Learning: Insights from Research, Theory and Practice*, Basingstoke, England: Palgrave Macmillan, pp. 136–150.
- Cohen A. D. (2014). Strategies in Learning and Using a Second Language, London, UK: Routledge.
- Dembo M. H. and Seli H. (2013). *Motivation and Learning Strategies for College Success: A Focus on Self-Regulated Learning*, New York, USA: Routledge.
- Digman (1990). "Personality structure: Emergence of the five-factor model", Annual Review of Psychology, Vol. 41, pp. 417-440.
- Donato R. and McCormick D. (1994). "A sociocultural perspective on language learning strategies: The role of mediation", *The Modern Language Journal*, Vol. 78, pp. 453–464.
- Dörnyei Z. (2012). Motivation in Language Learning, Shanghai: Shanghai Foreign Language Education Press.
- Ehrman M. (2008). "Personality and good language learners", in: C. Griffiths (Ed.), *Lessons from Good Language Learners*, UK: Cambridge University Press.
- Ehrman M. and Oxford R. L. (1995). "Cognition plus: Correlates of language learning success", *Modern Language Journal*, Vol. 79, No. 1, pp. 67–89.
- Ehrman M. E. and Oxford R. L. (1989). "Effects of sex differences, career choice, and psychological type on adult language learning strategies", *The Modern Language Journal*, Vol. 73, pp. 1–13.
- Ehrman M. E. and Oxford R. L. (1990). "Adult language learning styles and strategies in an intensive training setting", *The Modern Language Journal*, Vol. 74, No. 3, pp. 311–327.
- El-Dib M. A. (2004). "Language learning strategies in Kuwait: Links to gender, language level, and culture in a hybrid context", *Foreign language Annals*, Vol. 37, No. 1.
- Ellis R. (1999, August). "A metaphorical analysis of learner beliefs", in: The 12th World Congress of Applied Linguistics (AILA 99).
- Ellis R. (2008). "Learner beliefs and language learning", in: *The Innovation and Tradition in ELT in the New Millennium*, Busan, Korea.
- Fazilatfar A. M., Damavandi R. R. and Sani R. H. (2015). "Learners' belief changes about language learning", *International Journal* of English Language Education, Vol. 3, No. 1.
- Gao X. (2010). Strategic Language Learning: The Roles of Agency and Context, Toronto: PEFC.

- Garcia T. and Pintrich P. R. (1995). "Assessing students' motivation and learning strategies: The motivated strategies for learning questionnaire", in: *The Annual Meeting of the American Educational Research Association*.
- Grainger P. (1997). "Language learning strategies for learners of Japanese: Investigating ethnicity", *Foreign Language Annals*, Vol. 30, No. 3, pp. 378–385.
- Grainger P. (2012). "The impact of cultural background on the choice of language learning strategies in the JFL context", *System*, Vol. 40, pp. 483–493.
- Green J. M. and Oxford R. L. (1995). "A closer look at learning strategies, L2 proficiency, and gender", *TESOL Quarterly*, Vol. 29, No. 2, pp. 261–297.
- Grenfell M. and Macaro E. (2007). "Claims and critiques", in: A. D. Cohen & E. Macaro (Eds.), *Language Learner Strategies*, Oxford, UK: Oxford University Press, pp. 9–28.
- Griffiths C. (2013). The Strategy Factor in Successful Language Learning, Toronto, UK: Multilingual Matters.
- Griffiths C. (2003). "Patterns of language learning strategy use", System, Vol. 31, pp. 367-383.
- Griffiths C. (Ed.) (2008). Lessons from Good Language Learners, Cambridge: Cambridge University Press.
- Griffiths C. and Parr J. M. (2000). "Language learning strategies, nationality, independence and proficiency", *Independence*, Vol. 28, pp. 7–10.
- Gu Y. (2002). "Gender, academic major, and vocabulary learning strategies of Chinese EFL learners", *RELC Journal*, Vol. 33, No. 1, pp. 35–54.
- Holec H. (1987). "The learner as manager: Managing learning or managing to learn?", in: A. Wenden & J. Rubin (Eds.), *Learner Strategies in Language Learning*, Englewood Cliffs, NJ: Prentice-Hall, pp. 145–157.
- Horwitz E. K. (1987). "Surveying student beliefs about language learning", in: A. L. Wenden & J. Rubin (Eds.), *Learner Strategies in Language Learning*, Englewood Cliffs, NJ: Prentice-Hall, pp. 119–129.
- Horwitz E. K. (1988). "The beliefs about language learning of beginning university foreign language students", *Modern Language Journal*, Vol. 72, pp. 283–294.
- Horwitz E. K. (2008). "Why students' beliefs about English learning matter: Issues in the development and implementation of the beliefs about language learning inventory", in: H. J. Siskin (Ed.), From Thought to Action: Exploring Beliefs and Outcomes in the Foreign Language Program, USA: Thomson Heinle, pp. 2–8.
- Khosravi M. (2012). "A study of language learning strategies used by EFL learners in Iran: Exploring proficiency effect on English language learning strategies", *Theory and Practice in Language Studies*, Vol. 2, No. 10, pp. 2122–2132.
- Li C. L. (2011). "Chinese high school graduates' beliefs about English learning", *Studies in Literature and Language*, Vol. 3, No. 2, pp. 11–18.
- Liu P. and Li L. (2015). "Metacognition and L2 reading strategies", in: R. Wegerif, L. Li & J. C. Kaufman (Eds.), *The Routledge International Handbook of Research on Teaching Thinking*, New York, USA: Routledge, pp. 266–278.
- Liyanage I. J. B. (2004). "An exploration of language learning strategies and learner variables of Sri Lankan learners of English as a second language with special reference to their personality types", Griffith University.
- Loewen S., Li S., Fei F., Thompson A., Nakatsukasa K. and Ahn S. et al. (2009). "L2 learners' beliefs about grammar instruction and error correction", *Modern Language Journal*, Vol. 93, No. 1, pp. 91–104.
- Lujan H. L. and DiCarlo S. E. (2006). "First-year medical students prefer multiple learning styles", Advances in Physiology Education, Vol. 30, pp. 13–16.
- Macao New Chinese Youth Association (2011). "Research report about Macao youth's English level", Macao.
- MacIntyre P. D. (1994). "Toward a social psychological model of strategy use", *Foreign Language Annals*, Vol. 27, No. 2, pp. 185–195.
- Magno C. (2010). "Korean students' language learning strategies and years of studying English as predictors of proficiency in English", *TESOL Journal*, Vol. 2, pp. 39-61.
- Magogwe J. M. and Oliver R. (2007). "The relationship between language learning strategies, proficiency, age and self-efficacy belief: A study in language learners in Botswana", *System*, Vol. 35, No. 3, pp. 338–352.
- McKeachie W. J., Pintrich P. R. and Lin Y. (1985). "Teaching learning strategies", Educational Psychologist, Vol. 20, pp. 153-161.
- Mercer S., Ryan S. and Williams M. (2012). *Psychology for Language Learning: Insights from Research, Theory and Practice,* London: Palgrave Macmillan.
- Mori Y. (1999). "Epistemological beliefs and language learning beliefs: What do language learners believe about their learning?", *Language Learning*, Vol. 49, No. 3, pp. 377–415.
- Mullins P. Y. (1992). "Successful English language learning strategies of students enrolled in the faculty of arts, Chulalongkorn

University, Thailand", unpublished doctoral dissertation, United States International University.

- Naiman N., Frohich M., Stern H. H. and Todesco A. (1978). "The good language learner", Toronto Ontario: Ontario Institute for Studies in Education.
- Nikitina L. and Furuoka F. (2006). "Re-examining Horwitz's beliefs about language learning inventory (BALLI) in the Malaysian context", *Electronic Journal of Foreign Language Teaching*, Vol. 3, No. 2, pp. 209–219.
- Noels K. A., Pelletier L. G., Clement R. and Vallerand R. J. (2000). "Why are you learning a second language? Motivational orientations and self-determination theory", *Language Learning*, Vol. 50, pp. 57–85.
- O'Malley J. M. (1987). "The effects of training in the use of learning strategies on learning English as a second language", in: A. L. Wenden & H. J. Rubin (Eds.), *Learner Strategies in Language Learning*, New York: Prentice Hall.
- O'Malley J. M. and Chamot A. U. (1990). *Learning Strategies in Second Language Acquisition*, New York: Cambridge University Press.
- O'Malley J. M., Chamot A. U., Stewner-Manzanares G., Kupper L. and Russo R. P. (1985a). "Learning strategies used by beginning and intermediate ESL students", *Language Learning*, Vol. 35, pp. 21–46.
- O'Malley J. M., Chamot A. U., Stewner-Manzanares G., Russo R. P. and Kupper L. (1985b). "Learning strategy applications with students of English as a second language", *TESOL Quarterly*, Vol. 19, pp. 557–584.
- Oxford R. L. (1990). Language Learning Strategies What Every Teacher Should Know, Boston: Heinle & Heinle Publisher.
- Oxford R. L. (2011). Teaching and Researching Language Learning Strategies, New York: Pearson Education Limited.
- Oxford R. L. and Burry-Stock J. A. (1995). "Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learning (SILL)", *System*, Vol. 23, No. 1, pp. 1–23.
- Oxford R. L. and Lee K. R. (2008). "The learners' landscape and journey: A summary", in: C. Griffiths (Ed.), *Lessons from Good Language Learners*, New York: Cambridge University Press, pp. 306–317.
- Oxford R. L. and Nyikos M. (1989). "Variables affecting choice of language learning strategies by university students", *The Modern Language Journal*, Vol. 73, pp. 291–300.
- Palmer D. J. and Goetz E. T. (1988). "Selection and use of study strategies: The role of the students' beliefs about self and strategies", in: C. E. Weinstein, E. T. Goetz & P. A. Alexander (Eds.), *Learning and Study Strategies: Issues in Assessment, Instruction, and Evaluation*, San Diego, CA: Academic Press, pp. 41–61.
- Pan T. T. (2005). "Strategic considerations for improving ESL learning outcomes among college students in Taiwan: A case study", unpublished doctoral thesis, University of Canberra.
- Park G. P. (1995). "Language learning strategies and beliefs about language learning of university students learning English in Korea", unpublished doctoral dissertation, The University of Texas.
- Park G. P. (1997). "Language learning strategies and English proficiency in Korean university students", *Foreign Language Annals*, Vol. 30, pp. 211–221.
- Peacock M. and Ho B. (2003). "Student language learning strategies across eight disciplines", *International Journal of Applied Linguistics*, Vol. 13, No. 2, pp. 179–200.
- Phillips V. (1991). "A look at learner strategy use and ESL proficiency", CATESOL Journal, Vol. 4, No. 1, pp. 57-67.
- Politzer R. L. and McGroarty M. (1985). "An exploratory study of learning behaviors and their relationship to gains in linguistic and communicative competence", *TESOL Quarterly*, Vol. 19, pp. 103–124.
- Prokop M. (1989). Learning Strategies for Second Language Users: An Analytical Approach with Case Studies, Lewiston, NY: The Edwin Mellen Press.
- Qingquan N., Chatupote M. and Teo A. (2008). "A deep look into learning strategy use by successful and unsuccessful students in the Chinese EFL learning context", *RELC Journal*, Vol. 39, pp. 338–358.
- Rahimi M., Riazi A. and Saif S. (2008). "An investigation into the factors affecting the use of language learning strategies by Persian EFL learners", *Persian EFL Learners*, Vol. 11, No. 2, pp. 31–60.
- Rao, Z. (2006). "Understanding Chinese students' use of language learning strategies from cultural and educational perspectives", *Journal of Multilingual and Multicultural Development*, Vol. 27, No. 6, pp. 491–508.
- Rao Z. (2012). "Language learning strategies and English proficiency: interpretations from information-processing theory", *The Language Learning Journal*, pp. 1–17.
- Reid J. M. (1987). "The learning style preferences of ESL students", TESOL Quarterly, Vol. 21, pp. 87-111.
- Riley P. (1994). "Aspects of learner discourse: Why listening to learners is so important", in: E. Esch (Ed.), *Self-Access and the Adult Language Learner*, London: Centre for Information on Language Teaching, pp. 7–18.
- Rubin J. (1975). "What the 'good language learner' can teach us", TESOL Quarterly, Vol. 9, No. 1, pp. 41-51.

- Schmidt R. and Watanabe Y. (2001). "Motivation, strategy use, and pedagogical preferences in foreign language learning", in: Z. Dörnyei & R. Schmidt (Eds.), *Motivation and Second Language Acquisition*, Honolulu: University of Hawaii Second Language Teaching and Curriculum Center, pp. 313–359.
- Schunk D. H. (1985)."Self-efficacy and classroom learning", Psychology in the Schools, Vol. 22, pp. 208–223.
- Schutz P. A. (1994). "Goals as the transactive point between motivation and cognition", in: P. R. Pintrich, D. R. Brown & C. E. Weinstein (Eds.), *Student Motivation, Cognition, and Learning*, Hillsdale, NJ: Erlbaum, pp. 135–156.
- Stern H. H. (1975). "What can we learn from the good language learner?", *Canadian Modern Language Review*, Vol. 31, pp. 304–318.
- Suwanarak K. (2012). "English language learning beliefs, learning strategies and achievement of masters students in Thailand", *TESOL in Context*, Special Edition S3: November 2012.
- Tang M. and Tian J. (2015). "Associations between Chinese EFL graduate students' beliefs and language learning strategies", *International Journal of Bilingual Education and Bilingualism*, Vol. 18, No. 2, pp. 131–152.
- Teh K. S. M., Embi M. A., Yusoff N. M. R. N. and Mahamod Z. (2009). "Language learning strategies and motivation among religious secondary school students", *The International Journal of Language Society and Culture*, Vol. 29, pp. 71–79.
- Vandergrift L. (1997). "The Comprehension strategies of second language (French) listeners: Adescriptive study", Foreign Language Annals, Vol. 30, pp. 387–409.
- Vandergrift L. (2003). "Orchestrating strategy use: Toward a model of the skilled second language listener", *Language Learning*, Vol. 53, No. 3, pp. 463–496.
- Vermettena Y. J., Lodewijksb H. G. and Vermuntc J. D. (2001). "Contemporary educational psychology", The Role of Personality Traits and Goal Orientations in Strategy Use, Vol. 26, No. 2, pp. 149–170.
- Wang J., Spencer K. and Xing M. (2009). "Metacognitive beliefs and strategies in learning Chinese as a foreign language", System, Vol. 37, pp. 46–56.
- Watkins D. A. and Biggs J. B. (2001). Teaching the Chinese Learner: Psychological and Pedagogical Perspectives, Hong Kong: Hong Kong University Press.
- Wenden A. (1986a). "Helping language learners think about learning", English Language Teaching Journal, Vol. 40, pp. 3–12.
- Wenden A. (1987a). "Conceptual background and utility", in: A. Wenden & H. J. Rubin (Eds.), Learner Strategies in Language Learning, UK: Prentice Hall International Ltd.
- Wenden A. (1999). "An introduction to metacognitive knowledge and beliefs in language learning: Beyond the basics", *System*, Vol. 27, pp. 435–441.
- Wesely M. P. (2012). "Learner attitudes, perceptions and beliefs in language learning", *Foreign Language Annals*, Vol. 45, No. 1, pp. 98–117.
- Wharton G. (2000). "Language learning strategy use of bilingual foreign language learners in Singapore", *Language Learning*, Vol. 50, No. 2, pp. 203–243.
- White C. (2008). "Beliefs and good language learners", in: C. Griffiths (Ed.), *Lessons from Good Language Learners*, New York: Cambridge University Press.
- Willing K. (1988). "Learning styles in adult migrant education", Sydney: National Centre for English Language Teaching and Research.
- Willing K. (1994). "Learning strategies in adult migrant education", National Centre for English Language Teaching and Research: Sydney.
- Wong L. L. C. W. and Nunan D. (2011). "The learning styles and strategies of effective language learners", *System*, Vol. 39, pp. 144–163.
- Wong-Fillmore L. (1976). "The second time around", unpublished doctoral dissertation, Stanford University.
- Wu Y. L. (2008). "Language learning strategies used by students at different proficiency levels", in: *The Innovation and Tradition in ELT in the New Millennium*, Busan, Korea.
- Yang N. D. (1992). "Second language learners' beliefs about language learning and their use of learning strategies: A study of college students of English in Taiwan", unpublished doctoral dissertation, The University of Texas.
- Yang N. D. (1999). "The relationship between EFL learners' beliefs and learning strategy use", System, Vol. 27, pp. 515–535.
- Zhong Q. M. (2015). "Changes in two migrant learners' beliefs, learning strategy use and language achievements in a New Zealand context", *System*, Vol. 53, pp. 107–118.
- Zimmerman B. J., Bandura A. and Martinez-Pons M. (1992). "Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting", *American Educational Research Journal*, Vol. 29, No. 3, pp. 663–676.