Proficiency, motivation, and classroom anxiety and their effects on language learning strategies used by Thai EFL learners

Attapol Khamkhien

Faculty of Liberal Arts and Science,
Kasetsart University, Nakhon Pathom, 73140 Thailand
E-mail: faasapk@ku.ac.th

Abstract

This paper is a report on an investigation into the relationship between three variables and language learning strategies used by Thai EFL learners. The objectives of this study are twofold: 1) to indentify language learning strategies commonly used by Thai learners, and 2) to determine the roles of three variables contributing to their use of language learning strategies: language proficiency, motivation, and anxiety. The data were elicited through a set of questionnaires, consisting of three different questionnaires: a Strategy Inventory for Language Learning (SILL), a Motivated Strategies for Learning Questionnaire (MSLQ), and a Foreign Language Classroom Anxiety Scale (FLCAS). A total of 1,405 Thai university students of English completed this set of questionnaires. The analysis showed that, in general, memory strategies were found to be the most commonly used learning strategies for Thai English learners, followed by compensation, metacognitive, cognitive, affective strategies, whereas social strategies ranked last. Concerning individual strategies, it was found that Thai learners tried to make guesses when confronted with unfamiliar words, reflected on their progress in learning English and try to find strategies to help them be a better learner of English. Motivation and anxiety were also reported to be the most significant variables affecting their choices of language learning strategies. The analysis of the questionnaires revealed certain elucidating facts that could be utilized for effective future of planning of English language teaching, potentially contributing to the improved performance of Thai learners of English.

Keywords: learning strategies, proficiency, motivation, classroom anxiety, Thai learners

บทคัดย่อ

บทความนี้เป็นการศึกษาความสัมพันธ์ระหว่างปัจจัยสามประการและการใช้กลวิธีการเรียนภาษาของผู้เรียนไทยที่เรียนภาษาอังกฤษเป็น
ภาษาต่างประเทศ วัตถุประสงค์หลักของการศึกษาครั้งนี้คือ 1) เพื่อระบุกลวิธีการเรียนภาษาที่ผู้เรียนไทยส่วนใหญ่ใช้ในการเรียนภาษาอังกฤษ และ 2)
เพื่อตรวจสอบบทบาทของปัจจัยสามประการอันได้แก่ ความสามารถทางภาษา แรงจูงใจในการเรียน และความวิตกกังวลในการเรียน ที่ส่งผลต่อการใช้
กลวิธีการเรียนภาษา ข้อมูลทั้งหมดเก็บรวบรวมโดยการใช้ชุดแบบสอบถามที่สร้างขึ้นจากการรวบรวมแบบสอบถาม 3 ชุดประกอบด้วย แบบสอบถาม
Strategy Inventory for Language Learning (SILL) แบบสอบถาม Motivated Strategies for learning Questionnaire (MSLQ) และแบบสอบถาม Foreign
Language Classroom Anxiety Scale (FLCAS) ผู้เข้าร่วมงานวิจัยครั้งนี้เป็นผู้เรียนไทยระดับมหาวิทยาลัยจำนวน 1,405 คน ผลการวิเคราะห์แสดงให้
เห็นว่า โดยทั่วไปผู้เรียนไทยส่วนใหญ่ใช้กลวิธีความจำในการเรียนภาษาอังกฤษมากที่สุด รองลงมาคือ กลวิธีชดเชย กลวิธีอภิปริชาน กลวิธีปริชาน และ
กลวิธีจิตวิสัย ส่วนกลวิธีสังคม เป็นกลวิธีการเรียนภาษาที่ผู้เรียนไทยนิยมใช้น้อยที่สุด ขณะเดียวกันพบว่า สำหรับกลวิธีย่อยนั้น ผู้เรียนไทยมักพยายาม
ใช้วิธีการเดาในการทำความเข้าใจคำศัพท์ที่ไม่คุ้นเคย และคิดถึงความก้าวหน้าในการเรียนภาษาอังกฤษ รวมถึงการพยายามหาหนทางที่จะทำให้เป็น
ผู้เรียนภาษาอังกฤษให้ดียิ่งขึ้น นอกจากนี้ผลการวิเคราะห์ยังชี้ให้เห็นว่าแรงจูงใจในการเรียน และความวิตกกังวลในการเรียนเป็นปัจจัยสำคัญที่มี
ผลกระทบต่อการใช้กลวิธีการเรียนภาษาของผู้เรียนไทย ผลการวิเคราะห์นี้เผยให้เห็นข้อเท็จจริงบางประการที่สามารถนำไปใช้ในการออกแบบและวาง
แผนการสอนภาษาอังกฤษอย่างมีประสิทธิภาพในอนาคต อันจะนำไปสู่การปรับปรุงสมิทธิภาพภาษาอังกฤษของผู้เรียนไทยให้มีศักยภาพมากยิ่งขึ้น

คำสำคัญ: กลวิธีการเรียนภาษา, ความสามารถทางภาษา, แรงจูงใจในการเรียน, ความวิตกกังวลในการเรียน, ผู้เรียนไทย

1. Introduction

In recent years, teaching English in several countries has shifted from the teacher fronted classroom to the learner-centered orientation. As a result of this change, a substantial body of research studies in English as a Second Language (ESL) and English as Foreign Language (EFL) have paid attention to autonomous and independent language learning (Wenden, 1991), particularly how languages are learned differently by individual learners (Chang, 1999; Cohen, 1998; Oxford, 1990; Stern, 1975). In this regard, language learning strategies have gained interest and popularity among teachers,

researchers and educators as they believed that learning strategies are a means of achieving learners' autonomy in the process of language learning involving individual differences (Benson & Voller, 1997; Oxford, 1990).

In an endeavor to improve learners' language proficiency, language learning strategies have been increasingly focused on and given much attention by researchers and scholars in the field of second and foreign language teaching and learning (e.g., Cohen, 1998; Ehrman, Leaver, & Oxford, 2003; Green & Oxford, 1995; Lan & Oxford, 2003; Oxford, 1990). These studies congruently suggested that learning strategies are one of the several factors contributing to success or failure in language achievement. Language learning strategies are also considered to be an indicator, identifying the source of discrepancies between successful and unsuccessful language learners, as well as between learning outcomes and achievements. Shen (2005) and Wharton (2000) have agreed that selecting appropriated strategies could enhance the learners' performance in second language learning. Thus, the choices of strategies play a crucial role in learning a language.

Several variables were reported to be factors affecting the choices of language learning strategies. These factors include age (Ehrman & Oxford, 1990; Lan & Oxford, 2003), gender (Green & Oxford, 1995; Khamkhien, 2010; Lan & Oxford, 2003; Peng, 2001), and learning styles (Khamkhien, 2012; Ko, 2002). Among these affective factors, there is an increased interest in the roles of language proficiency (Chamot, Barnhart, El-Dinary, & Robbins,1999; O'Malley & Chamot, 1990), motivation (Dörnyei, 2001; Gardner, 1985; Khamkhien, 2010; Mochizuki, 1999; Wharton, 2000), and classroom anxiety (Horwitz, Horwitz, & Cope, 1986; Horwitz, Horwitz, & Cope, 1991; Horwitz, 2001) which has led to a number of studies investigating the relationship between these three factors and language learning strategies.

Despite the fact that research into language learning strategies for English as a second and foreign language context is common, and the effects of these individual variables within the Thai EFL context is apparent, previous research yielded inconclusive results due to different research settings, leading to the limitation of generalizability of the research findings and pedagogical implications. Additionally, most of the previous research focuses on investigating one variable contributing to language learning strategies used by a group of students in a particular setting. A few research studies have focused on the roles of language proficiency, motivation, and classroom anxiety on language learning strategies. The principle objective of this study is to enhance this line of research by identifying the language learning strategies used by Thai students. This study is also a response to a call to determine the roles of these factors on language learning strategies. Results from the study are expected to provide insights into the language learning strategies of foreign language learners and to have pedagogical implications for English instruction in the foreign language context in general, and in the Thai context in particular.

2. Related studies

This section provides a definition and classification of language learning strategies. Subsequently, a review of previous studies which have investigated the roles of language learning strategies on language proficiency, motivation and classroom anxiety in studying English is presented.

2.1 Language learning strategies

In the past two decades, researchers and practitioners have attempted to clearly define and explain language learning strategies. For example, Cohen (1996) defines second language learning strategies as "the steps or actions selected by learners either to improve the learning of a second language, the use of it, or both" (Cohen, 1996, p. 2). Chamot (2005) defined learning strategies as procedures facilitating learning tasks, while Allwright (1990) and Little (1991) agreed that learning strategies enable learners to become more independent, autonomous and lifelong learners. These statements suggest the importance of language learning strategies as they can help learners manage their learning and achieve their desired learning goals and outcomes.

Different classifications and conceptualizations of language learning strategies have also been proposed. For example, O'Malley and Chamot (1990) divided language learning strategies into three categories: cognitive, metacognitive, and social-affective. In this regard, Oxford (1990) developed the most comprehensive, detailed and systematic taxonomy of learning strategies (Ellis, 1994). She neatly proposed that "they are tools for active, self-directed

involvement, which is essential for developing communicative competence. They 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" (Oxford,1990, p. 8). Oxford also categorized language learning strategies into two domains: Direct Strategies and Indirect Strategies. Direct Strategies mean language learning strategies that directly involve the target language. All direct strategies require mental processing of the language (Oxford, 1990, p. 37). The three groups of direct strategies are as follows:

1. Memory strategies – techniques specifically tailored to help the learner store new information in their memory and retrieve it later on, e.g., placing new words in context, using keywords and representing sounds in memory, etc.

2. Cognitive strategies – skills that allow students to better comprehend and produce language in different ways, e.g., note-taking, repetition, summarizing text, etc.

3. Compensation strategies – behaviors used to compensate and help them to employ the language, e.g., guessing while listening or reading, or using synonyms or paraphrasing while speaking or writing.

As opposed to Direct Strategies, Indirect Strategies provide indirect support for language learning through focusing, planning, evaluating, seeking opportunities, controlling anxiety, increasing cooperation and empathy, and other means (Oxford, 1990, p. 151). The three sets of strategies in Indirect Strategies are as follows.

4. Metacognitive strategies – behaviors used for arranging, planning and evaluating one's learning, e.g., overviewing and linking with already known material.

5. Affective strategies – techniques which regulate emotional behaviors and motivation, e.g., using relaxation techniques, singing songs in a target language to lower one's anxiety, etc.

6. Social strategies – actions allowing better learner interaction with other people in the language learning process, e.g., asking questions, cooperating with peers, and developing empathy towards target language speaking people, etc.

Oxford's taxonomy has been accepted and used worldwide to collect data on language learning strategies (e.g., Green & Oxford, 1995; Lan & Oxford, 2003; Olivares-Cuhat, 2002; Oxford & Burry-Stock, 1995; Wharton, 2000) because it is

regarded to be the most detailed and comprehensive learning strategy classification to date (Ellis, 1994; Olivares-Cuhat, 2002). In addition, this taxonomy has been employed in a number of studies focusing on correlating strategy use with other individual variables including age, gender, attitudes, motivation, learning style, aptitude, career orientation, national origin, language teaching methods, task requirements, duration, and degree of awareness (e.g., (Goh & Foong, 1997; Gu, 2002; Horwitz et al., 1991; Khamkhien, 2010; Mochizuki, 1999; Mullin, 1992; Park, 1997; Pintrich, Smith, Garcia, & McKeachie, 1991; Shmais, 2003; Wharton, 2000; Yamashiro & McLaughlin, 2001). Given its comprehensiveness, detailed presentation and popular use, the Oxford's learning strategy classification is adopted in this study.

2.2 Language proficiency

A number of research bodies have established the existence of the differences of language proficiency and the use of language learning strategies (e.g., Khalil, 2005; Magogwe & Oliver, 2007; Park, 1997; Shmais, 2003). A number of ways to measure learners' language proficiency were employed in previous studies. In this regard, the measurement found to be used in the literature include standardized tests (Nisbet, Tindall, & Arroyo, 2005), language achievement tests (O'Mara & Lett, 1990), entrance examination (Mullin, 1992), duration of study (Khalil, 2005), and students' GPAs (Shmais, 2003).

Park (1997), for example, investigated the relationship between the strategy use of Korean university students and language proficiency. He found a significant relationship between SILL (Strategy Inventory for Language Learning) learning strategies and English proficiency as measured by students' TOEFL scores. In addition, the study revealed that cognitive and social strategies were more predictive of TOEFL scores than other strategies. Shmais (2003) revealed that students with high proficiency, as measured by GPAs, differed from less proficient learners only in their use of cognitive strategies. Similarly, Lan and Oxford (2003) found significant effects for language proficiency in Taiwanese elementary school EFL learners' use of metacognitive, cognitive, compensatory and affective strategies.

Although the studies above used different methods to determine students' English proficiency, the results shared similarities, showing

that students' language proficiency was affected their learning strategy use, reporting significantly greater use of learning strategies by high proficient learners than their low proficient counterparts (e.g., Goh & Foong, 1997; Green & Oxford, 1995, O'Malley & Chamot, 1990; Park, 1997; Shmais, 2003; Wu, 2008). This indicates that a high level of proficiency has been associated with an increased use of both direct and indirect strategies (Chang, 1990; Green & Oxford, 1995; Park, 1997).

Even though research studies on language strategies and proficiency have been commonly found reflecting a distinction in strategy use between high and less proficient learners, the relationship between levels of language proficiency and language learning strategies are not constant due to the fact that different learning settings and cultural background of the learners can generate different results (Wu, 2008). Thus, further studies are needed to verify and confirm the role of language proficiency in determining learning strategies.

2.3 Motivation

Gardner (1985) describes motivation and attitudes as the primary sources contributing to the success of individual language learning, while motivation can also explains why people decide to do something, how long they are willing to sustain an activity, and how hard they are going to pursue it (Dörnyei, 2001). Gardner has described the phenomenon of motivation that it consists of four components: a goal, effort, want, and attitudes toward learning activities. The concept of motivation can be classified into two orientations of reasons: instrumental and integrative. An instrumental orientation is more exclusively self-oriented, described as when students have utilitarian reasons such as they want to pass an exam or they want to get a job. Integrative orientation refers to the individual's willingness and interest in having social interaction with members of the learner group. This orientation occurs when students wish to truly become part of the culture of the language being learned. Both instrumental and integrative orientations probably lead to more proficiency, but integrative orientation motivated students to learn more (Gardner & MacIntyre, 1993).

Research studies on motivation, to date, have increased in number, and frequent recognition is given in literature to the potential relationship between affective factors and strategy selection. For example, Khamkhien (2010) found a significant effect on the use of language learning strategies due to motivation among Thai and Vietnamese students, especially Thai highly-motivated students and lowly-motivated ones. Oxford and Nyikos' study (1989) indicated that learners with a high motivation to learn a language will likely use a variety of strategies, finding that motivation was the single most important factor influencing strategy use. Similarly, Mochizuki's (1999) study, pointed out that, after being reassured by the Second Grade Test of the Society of Testing English Proficiency (STEP) and the 80-item SILL, 44 second-year and 113 first-year Japanese students used compensation strategies most often and affective ones the least. The study also reported that motivation affected the learner's choices of strategies the most strongly of all the factors considered, the others being the major course, self evaluation of English proficiency, enjoyment of English learning, and gender.

The result of Mochizuki's study is similar to Tamada's (1996) study investigating 24 Japanese ESL college learners' language learning strategies use and the instrumental and integrative motivation. The findings of this study suggested that, centering learning, and evaluating learning strategies had certain influences on learning strategy use. The study also indicated that students' gender, integrative motivation, and instrumental motivation affected choices of strategies significantly. Experiences of both studying and living abroad significantly also seem to affect their strategy choices. Also, Chang and Huang (1999) investigated the relationship between instrumental and integrative motivation on learning strategy use of Taiwanese students at a public university in the United States. The results revealed that the use of their learning strategies was associated with motivational level. Supporting Chang and Huang's study, MacLeod (2002) congruently found that strategy use was not influenced by the learners' particular instrumental and integrative motivation, but it was affected by motivational level.

The results of the previous studies described above show a wealth of information with regard to the relationship between language learning strategy use and learner's motivation in learning a language. However, most of the studies appear to be conducted in specific contexts and

learning environments. The implication of the results is relatively limited by nature. Therefore, given the differences of characteristics of learners, further research in this area is still needed.

2.4 Classroom anxiety

Previous studies show that anxiety is also considered to be one of the variables that may affect the choices of language learning strategies. However, only a small number of studies have been conducted to explore the relationship between the classroom anxiety of learning English and the use of language learning strategies. Horwitz (2001) and Tamijima (2002), for example, revealed that language classroom anxiety mostly resulted from students' embarrassment and confusion during the learning situation. These factors can affect learners' productive skills like speaking and writing skills and including learning strategies.

Another study focusing on the relationship between language learner proficiency and classroom anxiety was conducted by Yamashiro and McLaughlin (2001). After investigating 220 Japanese junior college and university students, they found that higher levels of anxiety tend to indicate lower levels of proficiency. The findings also suggested that a higher level of motivation might lead to a higher level of anxiety, which in turn may lead to a lower level of proficiency. The results of their study are congruently associated with Kondo and Yang's study (2003) on classroom anxiety with 148 university students. Their study showed that classroom anxiety had a great influence on low proficiency, fear of negative evaluation by classmates, and speaking activities. These findings are also consistent with Horwitz et al. (1991), who revealed that about half of 289 Japanese students in university conversation classes suffered from some level of anxiety. Therefore, in the light of the significance of classroom anxiety, it can be said that these studies confirm the role of anxiety as an important factor affecting learners' language learning.

The studies above are deemed to agree on the role of anxiety on several aspects of language learning. However, some researchers have argued that it is not anxiety, but the native language ability and language learning aptitude of learners that need to be considered (e.g., Ganschow, Anderson, Javorshy, Skinner, & Patton, 1994; Liu, 2004;

Sparks, Patton, Ganschow, & Humbach, 2009). Since studies on language learning in relation to differences in classroom anxiety of students in second and foreign language learning have produced mixed results, this issue calls for more studies to investigate the roles of classroom anxiety in language learning.

Out of this context of language learning strategies, proficiency level, motivation and anxiety in learning a language, the following research questions were developed:

1. What are the language learning strategies commonly used by Thai EFL students?

2. What are the effects of language proficiency, motivation and classroom anxiety on the use of their learning strategies?

3. Methodology

3.1 Population and participants

The targeted population of this study was Thai undergraduate students studying English at universities in Thailand. Given the scope and scale of the study, it was not possible that all Thai universities participate in the present study. Therefore, purposive sampling was considered the most suitable approach for this study. To ensure that the results obtained from the study could be generalized to the target population, 35 classes of students at a public university in Thailand were purposively chosen as the participants for this study. As a result, a total of 1,405 undergraduate students were invited to participate in this research. In addition, they had to fulfill three main criteria to be qualified for the present study. First, they were, at the time of study, either first or second year students studying fundamental English courses. Second, their age ranged from 17 to 21 years. Third, all of the participants had at least 12 years English instruction experience, since Thai students learn English as a compulsory subject from Grade 1 onwards.

3.2 Instruments

A set of questionnaires was used to collect data for this study. This set of questionnaires consisted of 1) the 50-item Strategy Inventory for Language Learning (SILL) developed by Oxford (1990), 2) the Motivated Strategies for Learning Questionnaire (MSLQ) created by Pintrich, Smith, Garcia, and McKeachie (1991), and 3) a Foreign Language Classroom Anxiety Scale (FLCAS) created by Horwitz, Horwitz, and Cope (1986).

The SILL was used to determine learners' language learning strategies. It consists of two parts. Part one is a background questionnaire, which was adapted to elicit personal information from the participants. The questions asked in this part collected data in reference to language proficiency, which was intended to be investigated in this study for further analysis. Two questions as to previous English grades and the overall GPAs of the participants were added in this part. Part two of the questionnaire lists 50 learning strategy statements classified into six categories: memory category, compensation category, cognitive category, metacognitive category, affective category, and social category. Responses were scored on a five-point Likert scale ranging from (1) "strongly disagree" to (5) "strongly agree".

The MSLQ was adopted in this study as it was designed to assess several aspects of learners' motivational orientations related to learning such as goal orientation and self-efficacy. The original version of the MSLQ has two sections. The first section contains 31 items regarding motivation, and 50 statements asking about learning strategies, using a seven point Likert scale. However, in this study, due to the length of the questionnaire, some adaptation of the MSLQ was made. Specifically, the 50 concerning learning strategies were excluded from the questionnaire used because the contents repeated the SILL statements, which were already utilized for that purpose. Also, the scores for each item of the motivation section were based on a five point Likert scale instead of a seven point one.

The FLCAS was employed to measure anxiety levels of the learners, which were also to be determined in the present study. It consists of 33 items related to language anxiety generally found in language learning. The items can be classified into three dimensions of related performance anxieties: 1) communication apprehension, 2) test anxiety, and 3) fear of negative evaluation in the classroom. Scores for each item of the questionnaire were assigned on a five-point Likert scale, ranging from (1) "strongly disagree" to (5) "strongly agree".

To ensure that the participants completely understood the content of the questionnaires, a pilot study was conducted prior to the main study. The set of questionnaires was given to 37 students. The questionnaire has a reliability coefficient by calculating the Cronbach alpha of .97, which is an acceptable range for the study.

3.3 Data collection and analysis

The set of questionnaires was distributed to students enrolling in Foundation English courses at a public university in Thailand. Instructions as to how to complete the questionnaire were explained prior to the test administration. To ensure reliability of the data, this group of participants was informed that there was no right or wrong answer, and that the questionnaire was only created for research purposes.

The data obtained from all returned questionnaires were statistically analyzed to establish frequency distribution in the form of descriptive and inferential statistics. The data analysis was carried out using the SPSS 15 statistical program. Means and standard deviations of the data were also computed. In addition, the t-test and separate ANOVAs were performed to determine the influences of language proficiency, motivation, and anxiety on the strategy use and to determine whether there were any significant differences among learners with regard to the strategy use.

4. Results

The data of the participants on the SILL were analyzed in relation to language proficiency, highly and lowly-motivated students, and language classroom anxiety. The following sections demonstrate the results of the analysis using t-test through means, standard deviations, and significant difference. Discussion is also made where possible.

4.1 Overall learning strategies used by Thai learners

In order to interpret all of the responses in terms of the frequency of strategy use, Oxford's (1990) key to understanding mean scores on the SILL questionnaire with response scale range 1 to 5 was used. That is, the average scores of 3.5 to 5.0 are defined as high use, 2.5 to 3.4 are moderate level use, and 1.0 to 2.4 mean low use of learning strategies. Table 1 presents the overall reported use of language learning strategies by Thai learners.

Table 1 indicates that among the SILL's six major strategy categories, Thai learners preferred to use memory strategies when learning English, which was reported the most highly used category (M = 3.63). That is, the students indicated

a preference to learn English by grouping, imagery, rhyming, and structured reviewing. As for other learning strategy categories, they showed moderate preference. Meanwhile, it is interesting to note that they least preferred to ask questions, cooperate with native speakers of English and become culturally aware, as social category was ranked last (M = 2.73).

The results of this study differ greatly from several other studies. For example, Yu's (2003) and Mullin's (1992) studies indicated that compensation strategies were reported as being used the most frequently by Thais, while memory strategies were reported being the least frequently used. These results are not consistent with the findings by Lan and Oxford (2003), and Mochizuki (1999) that indicate the least used strategy category of Asian learners was memory strategy category.

Table 1 Overall learning strategies used by Thai learners

Rank	Strategy Category	Mean	SD	Min	Max	Level
1	Memory Strategies	3.63	0.56	1.78	5.00	High
2	Compensation Strategies	3.22	0.45	2.00	4.50	Medium
3	Metacognitive Strategies	3.09	0.56	1.78	4.44	Medium
4	Cognitive Strategies	2.98	0.64	1.50	4.83	Medium
5	Affective Strategies	2.75	1.17	0.72	4.67	Medium
6	Social Strategies	2.73	1.00	0.63	4.50	Medium
	Average (N = 1,405)	**3.07**	**0.73**	**1.40**	**4.66**	**Medium**

4.2 Language proficiency

To determine the roles of language proficiency affecting the choices of language learning strategies, all returned questionnaires were coded into two groups of students based on their GPAs: (1) students with GPAs more than 2.50 to 4.00, and (2) those with GPAs less than 2.49. After the data elicited by the SILL were analyzed, a number of interesting points were found. The results of the choices of language learning strategies by language proficiency are presented in the following table.

Table 2. Variation in use of strategy category by language proficiency

Strategy Category	Low-proficiency Level Learners (N = 813)	High-proficiency Level Learners (N = 592)	f	Sig
	Mean (S.D)	Mean (S.D)		
Memory	3.57 (0.55)	3.68 (0.56)	2.59	0.11
Compensation	3.17 (0.47)	3.26 (0.43)	2.61	0.11
Cognitive	2.84 (0.60)	3.10 (0.65)	10.40	0.00*
Metacognitive	3.02 (0.56)	3.15 (0.55)	3.13	0.08
Affective	2.66 (0.70)	2.83 (0.72)	3.43	0.07
Social	2.69 (0.57)	2.76 (0.68)	0.69	0.41
Average	2.99 (0.58)	3.10 (0.60)	3.80	0.07

*$P < 0.05$

From Table 2, it can be seen that the mean score of strategy use for high-proficiency level students is slightly higher than that of low-level ones in all strategy categories. This finding suggests that high-proficiency level learners use a somewhat wider range of all learning strategy categories than their low-proficiency level counterparts when learning English. However, there is not a great degree of difference between these two groups of students, as the results of a one-way test of ANOVA (F = 3.80, p = 0.07) showed that no significant interaction was obtained in the use of learning strategy category between less proficient learners and high proficient learners, except for the use of cognitive strategies (F = 10.40, p = 0.00). The result of the comparison is consistent with several previous studies (e.g., Oxford & Nyikos, 1989; Chang, 1990; Chen, 1990; Green & Oxford, 1995; Park, 1997; Shmais, 2003), confirming a close link between language

proficiency and the use of language learning strategies.

4.3 Motivation

Further analysis was conducted to explore the relationship between the choices of language learning strategies used by the learners with different levels of motivation. In order to determine and get a clearer picture of the roles of motivation on learning strategy choices, the MQSL questionnaires completed by Thai participants were coded into two groups of students, highly-motivated and lowly-motivated students. The differences in the use of six language learning strategy categories by these groups of Thai EFL students are shown in Table 3.

Table 3. Variation in use of strategy category by motivation

Strategy Category	Lowly-motivated Learners (N = 457)	Highly-motivated Learners (N = 948)	f	Sig
	Mean (S.D)	Mean (S.D)		
Memory	3.49 (0.53)	3.77 (0.54)	17.20	0.00*
Compensation	3.13 (0.45)	3.32 (0.43)	10.65	0.00*
Cognitive	2.85 (0.61)	3.11 (0.65)	10.09	0.00*
Metacognitive	2.95 (0.55)	3.23 (0.54)	15.39	0.00*
Affective	2.60 (0.72)	2.93 (0.67)	13.66	0.00*
Social	2.65 (0.63)	2.82 (0.62)	4.81	0.02*
Average	2.95 (0.58)	3.20 (0.58)	11.97	0.00*

$P < 0.05$

Interestingly, as shown in the table, similar to language proficiency, highly-motivated Thai learners preferred to use a wider range of learning strategies than their counterparts in all of the six learning strategy categories as the mean score of strategy use for highly-motivated learners is 3.20, while 2.95 for lowly-motivated ones. In addition, ANOVA was performed on the mean scores and showed that there is a statistically significant difference between the use of language learning strategies in all of the six categories, F = 11.97, p = 0.00. This finding demonstrates that motivation is an effective variable influencing the use of learning strategies when learning English. By extension, this result highlights that the highly-motivated students show significantly higher use of all types of learning strategies than the lowly-motivated students.

The result is consistent with Khamkhien's (2010) study confirming the importance of motivation as one of the significant factors contributing to the use of learning strategies among Thai learners. In addition, this result is associated with findings by Mochizuki (1990) and Tamada's (1996) reporting the strong relationship between motivation and language learning strategies usage reported by Japanese learners.

4.4 Anxiety

The last variable investigated in this study was language classroom anxiety of Thai learners. To examine how the participants' level of anxiety affects their choice of language learning strategies, the data obtained from FCLAS questionnaire were analyzed. The analysis revealed that Thai learners with negative anxiety reported a wider range of learning strategies than those with positive anxiety. Table 4 summarizes the differences of the choice of language learning strategies usage reported by Thai learners with positive and negative anxiety.

Table 4. Variation in use of strategy category by anxiety

Strategy Category	Learners with Positive Anxiety (N = 896)	Learners with Negative Anxiety (N = 509)	f	Sig
	Mean (S.D)	Mean (S.D)		
Memory	3.49 (0.53)	3.78 (0.54)	17.20	0.00*
Compensation	3.13 (0.45)	3.31 (0.43)	10.65	0.01*
Cognitive	2.86 (0.61)	3.11 (0.65)	10.09	0.00*
Metacognitive	2.96 (0.55)	3.23 (0.54)	15.39	0.00*
Affective	2.60 (0.72)	2.93 (0.67)	13.66	0.00*
Social	2.65 (0.63)	2.82 (0.62)	4.81	0.03*
Average	2.95 (0.58)	3.20 (0.58)	11.97	0.01*

$P < 0.05$

Of 1,405 participants, it can be concluded from the table above that the majority of Thai learners, both those with positive anxiety and negative, using the memory category most (M = 3.49 and 3.78), whereas the social category was the least learning strategy category used by both groups of students (M = 2.65 and 2.82) respectively. As analyzed by ANOVA, the mean score was significantly different, F = 11.97, p = 0.01, suggesting that, similar to motivation, a significant interaction was obtained between the mean scores and learners' anxiety. Moreover, significant differences were also found in all of the six language learning strategy use between these two groups of participants. This finding demonstrated that the less anxiety these learners have, the more they would use learning strategies when learning English.

This result is in line with Yamashiro and McLaughlin's (2001), Kondo & Yang's (2003), and Wu's (2010) studies revealing that the level of anxiety was the most influential influence on the learners' use of strategies. This finding also shows that the variable of classroom anxiety of learners plays a significant role in the participants' use of learning strategies.

5. Discussion and implications

Since the results of this study provide a greater understanding of learning strategy use among EFL learners in general and Thai learners in particular, the results have important pedagogical implication for English instruction in Thailand. Specifically, the study found that the Thai participants in the present study relied principally on memory strategies. The findings do not correlate with results generated by previous studies focusing learning strategies, identifying that memory strategy items were the least used by ASEAN learners (e.g., Chen, 2005; Griffiths, 2003; Lan & Oxford, 2003; Mullin, 1992; Oxford, 1996). In contrast, the results are in line with Wharton (2000) and Yang's (1999) study revealing that Asian students expressed strong preferences for memory strategies rather than other strategies. One possible explanation is that most classroom instructions in Thailand are primarily based on audio-lingual and grammar-translation methods, these remain the primary methods of English instruction even though the communicative approach has been substantially promoted (Wongsothorn, 2000). Meanwhile, social strategies ranked last. A possible underlining reason is that

Thai students are too shy to speak English either with Thais or native speakers. Moreover, most Thai teachers still use the textbook-based, grammar-translation approach, with lessons mainly focusing on grammatical structures, vocabulary, and reading. Therefore, in regular English classrooms, Thai students not have a chance to practice social interaction with their counterparts (Kanoksilapatham, 2010). In this regard, as mentioned earlier, the instructional trend is now towards learner-centered learning, so the implications for teaching of English should be treated cautiously. To promote learner-centered instruction, when in classroom, students should be encouraged to work in pairs or in groups to share their ideas and knowledge in addition to learners focusing on memory strategies. Teachers should possibly introduce learners to using language in typical situations after teaching new information so that they can place the new words, grammar and language use into context.

With regard to language proficiency, the result of the study showed a significant correlation between cognitive strategy use and proficiency level. This result is consistent with Peacock and Ho's (2003) and Chen's (2002) studies, confirming that cognitive strategies showed very high correlations with the proficiency level of the participants and were used by high-proficiency learners. The reason why cognitive strategies were relatively strongly linked to the learners' proficiency level is that they play an important role in manipulating and transforming learning materials through in class practicing, analyzing, reasoning and elaboration (Park, 1997). In this regard, it is plausible that the higher the proficiency level of the students, the more aware they are of the rules and strategies of language learning.

Moreover, since the results concerning the relationship between language proficiency and learning strategies were not statistically significant, apart from that for cognitive strategies, the use of GPAs to represent students' language proficiency should be also taken into account. Specifically, considering the possibility that, if the GPAs are by far not a particularly good indicator of language proficiency as mentioned elsewhere about typical approaches to English language teaching in Thailand, this could be a reason for the general lack of significant results which could seem an interesting anomaly as found in the present study.

Alongside the proficiency level of the students, motivation was found to have a significant effect on the students' use of all of the six learning strategy categories. This result is consistent with Khamkhien (2010), Mochizuki (1999) and Wharton (2000), confirming that motivation affected the learner's choices of strategies the strongest of all the factors. In this regard, it seems that motivation is a significant factor for highly-motivated students in learning English, which can cause action and effort to be put fourth during the learning process. An explanation for the highly-motivated students' use of language learning strategies is that they have strong goals in learning English, such as to complete course requirements or to study abroad, or even to learn and understand the culture of the target language when compared to the lowly-motivated student group.

Classroom anxiety was identified as one of the contributing factors to the choice of language learning strategies. The present study found that the anxiety levels of the participants were a significant factor affecting the use of learning strategies. Also, it was found that the lower anxiety the students had, the higher use of strategies they made. The result of this study is consistent with Kondo and Yang's (2003), Yamashiro and McLaughlin's (2001), and Wu's (2010) studies confirming that anxiety was the most influential factor on the participants' use of strategies. This result elucidates the role of classroom anxiety and its possible detrimental effects on the learners in general, and on the learners' proficiency in particular, as if teachers were not aware that teachers, activities, pedagogical practices, and evaluation are plausible anxiety-provoking factors in the language classroom.

Identifying learning strategies use and understanding the factors that may affect learning strategy pattern is one of the many possible approaches classroom teachers can employ to help students become successful learners. It also provides valuable and interesting information on the techniques learners resort to when learning English. As suggested by the analysis, the main findings generated from this study also provide language teachers with a deeper insight into how they should be aware of the learning strategies used by Thai students and how they can design more effective learning tasks and activities to suit Thai university students. Teachers should encourage and motivate learners to learn and understand the language learning process in order to improve their skills in the target language. In this regard, non-threatening instruction is a good way to ease learners' anxiety and enhance their learning motivation. In addition, the teachers need to be sensitive to learners' fears and insecurities and help them to overcome those fears (Wu, 2010). More specifically, to maximize learners' learning strategies, since memory strategies focusing mostly on the storage function, teachers may suggest students group or classify what is heard or read into meaningful groups, associate new language information with familiar concepts already in their memory, and place new words or expressions that have been heard or read into a meaningful context when learning English.

This study is not without caveats. In light of the exploratory nature of this study and the number of the participants, the results should be interpreted carefully. First, given the limited number of the participants, the findings of this study remain inconclusive and call for subsequent studies analyzing a larger group of participants. Next, as mentioned earlier, it is possible that learning strategies identified might be influenced by other variables e.g., nationality, age, field of study, etc. Therefore, further studies could investigate whether students from different background make full use of learning strategies in their language learning. In addition, the instruments used in the future studies are probably supplemented with other research tools and techniques such as think-aloud protocols concurrent with conducting interviews, written diaries, and other methods which might provide and support the actual use of strategies and more sample-specific data.

6. Conclusion

This study aimed to identify Thai EFL university student's types of language learning strategies used when learning English. The study also aimed to explore the roles of language proficiency, motivation and classroom anxiety on their choices of learning strategies. Based on the responses from the SILL questionnaire and classification suggested by Oxford (1990), it is apparent that the pertinent learning strategies of Thai EFL students were memory strategies. That is, they preferred to make guesses when they

needed to understand unfamiliar words, think about the progress in learning English and try to find out how to be a better learner of English. Likewise, it is interesting to note that most Thai students were not familiar with the use of social strategies and affective strategies when learning English. As for the variables contributing to the choice of language learning strategies, it can be concluded that motivation and the level of anxiety are the most significant affective factors. Moreover, a statistically significant difference was also found in the use of cognitive strategies among highly-proficient and lowly-proficient learners. It was also found that the lower anxiety the students had, the higher they used learning strategies when learning English. In conclusion, these results support the idea that teachers should be aware of individual differences of language learners, particularly the discrepancy of the level of motivation and classroom anxiety. Teachers and learners should pay attention to the choice of learning strategies and these factors as they can influence language achievement and lead to the improvement of language proficiency.

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8. References

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