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Is Online Learning Suitable for All English Language Students?

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Abstract

This study aimed to examine online language learning strategies (OLLS) used and affection in online learning of successful and unsuccessful online language students and investigate the relationships between OLLS use, affection in online learning and online English learning outcomes. The participants included 346 university students completing a compulsory online English course. Based on the grade results at the end of the course, the participants were divided into two groups: successful online language students (SLs, n=262) and unsuccessful online language students (ULs, n=84). Participants rated their use of three OLLS: cognitive, metacognitive, resource management, and rated their perceptions of affection in online learning. The main instruments were an OLLS questionnaire, and a stimulated recall with an in-depth interview. The results revealed that OLLS were employed by SLs more significantly when compared to what ULs did. In addition, significant difference was found at the level of 0.01 ($p < .01$) between the mean values of SLs and ULs for metacognitive strategies

($t=2.66^{**}$). However, there was no significant difference between SLs and ULs use of resources management strategies. Regarding affection in online learning, there was a significant difference in terms of perceptions. Metacognitive strategies and affection in online learning had significant correlations with online English learning outcomes. The results suggest that low English proficiency students lacked online learning skills and experiences in self-directed learning. They may not be ready for learning English online.

Keywords: unsuccessful learners; online learning strategies; online language learning strategies; learning outcomes

Introduction

Online learning has become an important component in education, and it is believed to provide unique advantages in the learning process (Appana, 2008; Dolence & Norris, 1995; Katz, 1999; Shopova, 2014). Therefore, in many countries, instruction has begun to shift from traditional or face-to-face classroom settings to online learning environments. This shift has been occurring in all fields of education, including English language instruction (Vovides, Sanchez-Alonso, Mitropoulou, & Nickmans, 2007). Clarke and Hermens (2001) posited that online learning is student-centered because students can control their own learning pace, and activities can be flexible so as to better suit a student's preferred learning style. Online learning also creates opportunities for active learning (Dolence & Norris, 1995). In addition, with good online learning applications or software, students have opportunities to participate in the discussion, express opinions, and share knowledge equally regardless of classroom size and time (Harasim, Calvert & Groeneboer, 1997).

Despite the benefits of online teaching and learning environment, students taking online courses could face difficulties that they might never have encountered in a traditional teaching and learning

environment (Tsai, 2009), and these difficulties could have a negative impact on their learning performance (Davies & Graffs, 2005). These difficulties can be classified into four major areas of challenges: cognition, metacognition, technical anxiety, and learning styles and preferences.

In the area of cognitive challenges, learners need higher cognitive ability to deal with the more multi-dimensional learning tasks and complex content (Tyler-Smith, 2006). Normally, online courses are equipped with dynamic functions, such as online exercises, text downloads, and video. Students learning online have to know how to click, drilldown, open new windows, and save files (Tsai, 2009; Wang & Chen 2007; Wu, Fitzgerald & Witten, 2014).

With regard to metacognitive challenges, online learners have great freedom of learning as there are no specific class schedules, and classroom attendance is not required (Tsai, 2009). Learners then need to monitor and self-regulate their learning by setting up a learning schedule to ensure they can complete all the lessons. According to Chang's (2013) study, students who adopted the self-monitoring preformed academically better than those who did not on the test of general English proficiency.

The third challenge involves computer and Internet anxiety. According to Aydin (2011), computer anxiety has a significantly negative impact on learners' achievement. When a computer system or network system is down, students feel frustrated because they might not be able to follow the lessons. This causes anxiety among lower Internet skilled students (Ekizoglu & Ozcinar, 2010; Saadé & Kira, 2009).

In terms of learning styles and preferences, Lee (2001) posited that in new learning environment students need time to adapt to some of the new challenges they will face. For some learners, these challenges might arise from the need to deploy a different learning style. For learners who are less skilled in the use of technology, this lack of skills may be problematic (Kearns, 2012; Lee, 2001). Most of the young and teenage learners prefer and are more familiar with studying

with peers (Crim & Reio, 2011, Vonderwell, 2003). Without teachers and peers, when students need their immediate assistance to clarify the problems that may arise, they might get frustrated and experience a level of anxiety (Arbaugh, 2002; Heirdsfield, Walker, Tambyah, & Beutel, 2011; Petrides, 2002; Thurmond, Wambach, Connors & Frey, 2002). The findings of Surjono's (2015) study revealed that students in which their multimedia preferences and learning style matched with the online course materials were likely to be successful in online learning.

Previous studies have revealed that learners' use of effective and appropriate online learning strategies will lead to successful academic achievement (Artino, & Jones, 2012; Fuller, Chalmers, & Kirkpatrick, 1994; Hattie, Biggs, & Purdie, 1996; Pintrich & Johnson, 1990; Shih, 2005; Zimmerman, 1998). Additionally, Solak and Cakir (2015) argued that employing effective online learning strategies is essential because, in doing so, students learn faster, have more pleasure, and learn more efficiently and effectively.

Literature Review

Online Learning Strategies (OLS) is defined as students' ability to understand and control their learning by employing a range of cognitive, metacognitive, resources management strategies and affective strategies in order to achieve online learning goals. Another factor that contributes to online learning achievement is affection in online learning (Hu & Grambling; 2009; Tsai, 2009; Zarisky & Styles, 2000).

Cognitive strategies, according to Cook and Mayer (1983), Payne, (1992), Pintrich, Smith, Garcia and McKeachie (1993), and Puzziferro (2008), are defined as the behaviors needed in order to successfully acquire knowledge while engaging in the learning process. These behaviors include selection, acquisition, construction, and integration of information. Cognitive strategies are sub-divided into six strategies namely (1) rehearsal strategies, (2) elaboration strategies, (3)

organization strategies, (4) comprehension/critical thinking strategies, and (5) internet skills.

Metacognitive strategies refer to the ways that learners monitor their cognitive processes by preparing and planning to learn as well as regulating and evaluating their learning process (Pintrich et. al, 1993). Metacognitive strategies are sub-divided into seven strategies; (1) self-regulation/volitional strategies, (2) time management strategies, (3) goal setting strategies, (4) self-monitoring/self-management strategies, (5) self-evaluation strategies, (6) concentration/effort regulation strategies, and (7) self-awareness strategies.

Resources management strategies are defined as the learners' ability to manage learning resources such as their study environment and learning time, and their ability to learn from peers or more knowledgeable students, and seek help from peers and instructors (Pintrich & De Groot, 1990). It is further divided into three sub-strategies; (1) environmental management strategies, (2) help seeking strategies, and (3) use of resources/resourcing strategies.

Affective strategies in online learning, according to Tsai, (2009) are students' perceptions towards the benefits they gain from online learning. It also includes the willingness to learn by having a positive attitude, motivation, and ways to reduce anxiety in a particular learning environment. It is sub-divided into three sub-strategies: attitude, motivation and anxiety control.

The review of difficulties confronted by students in an online learning environment, and OLLS in online learning as discussed above was used as a framework to develop the questionnaire used in this study. It has been highlighted so far that OLLS is one of the factors that affects students in online learning environment to become successful online learners. Studies related to OLLS, academic success, motivation, and anxiety have been conducted and these studies are presented below.

In Turkish context, Altunay, Campus and Antakya (2014) surveyed strategies used by 63 Turkish distance learning university students. The study found that students sometimes used all types of

language learning strategies, but rarely used affective strategies because they felt relaxed and less tense than they did in a face-to-face classroom. However, the students with low proficiency levels still had more anxiety than the ones with higher proficiency.

In Khabbaz and Najjar's (2015) study, students' language learning strategies in a Moodle-based language learning program were examined. It was found that new technology in language learning could impede autonomous learning due to the challenges presented by the new technology. This resulted in lower use of the meta-cognitive strategies and was considered to have a direct negative impact on the academic results.

Shih (2005) conducted a study to assess the online learning strategies of Taiwanese EFL learners. It was also found that successful learners applied a larger variety of strategies and used metacognitive and cognitive strategies more frequently than unsuccessful learners.

A similar result was found in Chen, Zhang, and Liu's (2014) study. Eighty-two intermediate level Chinese students' use of listening strategies in a Web-based CALL was investigated. It was found that students tended to use metacognitive strategies the most, followed by cognitive strategies; affective strategies were used the least.

Puzziferro (2008) examined the relationship between self-regulated learning strategies and students' online learning outcomes of the college students. The top strategies used were effort regulation followed by time and study environment, while peer learning and help seeking were the least used strategies. It was also found that the online learning strategies that could predict students' grades were time and learning environment. Students were more likely to achieve online course when they managed their time well and studied in a good environment.

Research conducted by Liu and Feng (2011) discovered a relationship among metacognitive strategies and online learning behavior and test achievement. The authors of the study concluded that the students in the high-score group of test achievements used more metacognitive strategies than those in the low-score group. The

authors also found that the students who spent more time learning online and taking more online tests achieved higher scores on the final examination.

As discussed above, employing effective online language learning strategies appears to be a key in achieving a successful outcome in online language learning. Previous literature has also indicated a relationship between online language learning strategies use and academic achievement. Many students, however, are not successful in an online learning environment; they prefer face-to-face classroom setting (Webster & Hackley, 1997). Although there have been some studies related to online learning conducted (Sukseemuang, 2009; Waemusa, Srichai & Wongphasukchote, 2008), the studies that focused on using OLLS in online learning were less explored in Thailand.

Accordingly, the current study was conducted to examine the students' use of OLLS, affection in online learning and the relationship between OLLS, affection in online learning and student learning outcomes. The study serves to fill a gap in the literature by focusing on the university students' use of OLLS and perception of affection. The results provide some new insights that come from students' perspectives on the use of OLLS. The results might have implications for educators creating and facilitating online courses and students who wish to be more successful in online English learning.

The following research questions were addressed.

1. Are there any significant differences in online language learning strategies use, and affection in online learning between successful and unsuccessful students? If so, what are they?
2. Is there any significant relationship between the use of online language learning strategies, affection in online learning and online English learning outcomes?

Methodology

Participants

This study involved 2,359 Thai university students enrolling in an online English course in the first semester of the 2015 academic year and earned “S” or “U” grade. This particular online English course is a remedial course designed for students whose English score of the Ordinary National Examination Test (ONET) were below 31 out of 100. The participants who completed and returned the questionnaires were 346 students: 262 SLs and 84 ULs. Out of 256 SLs and 84 ULs, five from each group were randomly selected for a stimulated recall (SR) and an in-depth interview.

Instruments

In this study, two main instruments were employed: an online language learning strategy questionnaire (OLLSQ) and a stimulated recall (SR) with an in-depth interview. OLLSQ was based on the literature review about online language learning and the OLLSQ was developed to elicit use of OLLS and affection in online learning. The first section of the questionnaire elicited general data regarding students’ views about taking an online course. The second section of the questionnaire contained twenty-seven 5-point Likert scale closed-questions and two open-ended questions to elicit online language learning strategies’ level of use. The third section of the questionnaire consisted of twelve 4-point Likert scale closed-questions and one open-ended question and focused on students’ perception of affection in online learning measuring the level of agreement. The content validity was reviewed by three experts using an index of the Item Objective Congruence (IOC). The pilot study of the OLLSQ was conducted in December 2015 with 50 first year students enrolling in an online English course. Cronbach’s alpha index was performed to measure the reliability of the OLLSQ. It was found that the questionnaire items were reliable for both section two and three ($\alpha = 0.90$ and 0.62 respectively).

A SR procedure and an in-depth interview were conducted for two main purposes. First, the SR was focused on observing the cognitive behaviors of the SLs and ULs when they learned English online. In addition, the SR helped the SLs and ULs to more accurately reply to the interview questions. The information from the SR and an in-depth interview was used to triangulate the OLLSQ. The interview questions were reviewed by three experts. The pilot study of the SR and an in-depth interview was conducted in December 2015 with three students who were not the participants of the main study.

Data Collection and Data Analysis

The data were collected in January 2016, the beginning of the second semester of Thailand's 2015 academic year. The overall response rate of the questionnaire was 76.38% (81.37% from SLs and 64.12% from ULs). Descriptive statistics, Point Biserial Correlation analysis, and independent-sample t-test were employed to analyze the data. The mean values of the students' OLLS level of use were as follows:

3.41-5.00 = high

2.61-3.40 = medium

1.00-2.60 = low

The scale interpretation for affection in online learning's level of agreement was as follows:

3.00-4.00 = high

2.00-2.99 = medium

1.00-1.99 = low

The scale interpretation for level of correlation was as follows:

0.50-1.00 = high

0.30-0.49 = moderate

0.10-0.29 = low

In addition, data from open-ended questions were classified based on the emerging themes. The data gained through interview were also analyzed using the content analysis.

Results

The results are organized according to the two research questions: 1) the differences in OLLS use, affection in online learning between SLs and ULs, and 2) the relationship between the use of OLLS, affection in online learning and online English learning outcome.

The differences in OLLS use between SLs and ULs

Table 1 summarizes the level of OLLS used by SLs and ULs.

Table 1: OLLS employed by SLs and ULs

| Strategies | SL (n=262) | | | UL (n=84) | | | t | p-value |
|----------------------|------------|------|--------------|-----------|------|--------------|--------|---------|
| | Mean | SD | Level of use | Mean | SD | Level of use | | |
| Cognitive | 3.25 | 0.63 | Medium | 3.08 | 0.56 | Medium | 2.19* | .028 |
| Metacognitive | 3.61 | 0.62 | High | 3.40 | 0.63 | High | 2.66** | .008 |
| Resources management | 3.13 | 0.69 | Medium | 3.01 | 0.66 | Medium | 1.44 | .150 |
| Total | 3.35 | 0.56 | Medium | 3.18 | 0.51 | Medium | 2.50** | .010 |

** Statistically significant at 0.01, * Statistically significant at 0.05

According to Table 1, there was a significant difference at the level of 0.01 ($p < .01$) for the level of use ($t = 2.50^{**}$) between SLs and ULs. SLs employed the overall OLLS significantly more than ULs (SLMean=3.35, ULMean=3.18, respectively). Among the three strategy types, significant difference was found at the level of 0.01 ($p < .01$) between the mean values of SLs and ULs for metacognitive strategies ($t = 2.66^{**}$). There was no significant difference between SLs and ULs for resources management strategies. Interestingly, both SLs and ULs used metacognitive strategies at the highest level of use while resources management strategies were the least used.

Table 2: Sub-OLLS employed by SLs and ULs

| Strategie | Sub-strategies | SL (n=262) | | | UL (n=84) | | | t | p-value |
|---------------------------|-------------------------------------|------------|------|--------------|-----------|------|--------------|--------|---------|
| | | Mean | SD | Level of use | Mean | SD | Level of use | | |
| Cognitive | Rehearsal | 3.06 | 0.74 | Medium | 2.89 | 0.69 | Medium | 1.88 | .06 |
| | Elaboration | 3.23 | 0.72 | Medium | 2.94 | 0.66 | Medium | 3.22** | .00 |
| | Organization | 3.04 | 0.86 | Medium | 2.91 | 0.85 | Medium | 1.23 | .21 |
| | Comprehension/ Critical thinking | 3.61 | 0.78 | High | 3.58 | 0.79 | High | 0.30 | .76 |
| | Internet skills | 3.35 | 1.17 | Medium | 3.19 | 1.21 | Medium | 1.08 | .27 |
| | Total | 3.25 | 0.63 | Medium | 3.08 | 0.56 | Medium | 2.19* | .28 |
| Metacognitive | Self-regulation/ Volitional | 3.76 | 0.91 | High | 3.45 | 0.86 | High | 2.70** | .00 |
| | Time management | 3.77 | 0.79 | High | 3.48 | 0.72 | High | 2.94 | .00 |
| | Goal setting | 3.67 | 0.90 | High | 3.48 | 0.81 | High | 1.77 | .07 |
| | Self-monitoring & management | 3.98 | 0.92 | High | 3.68 | 1.04 | High | 2.41* | .01 |
| | Self-evaluation | 3.48 | 0.89 | High | 3.36 | 0.82 | Medium | 1.09 | .27 |
| | Concentration/ Effort regulation | 3.14 | 1.25 | Medium | 3.01 | 1.04 | Medium | 0.92 | .36 |
| | Self-awareness | 3.31 | 0.91 | Medium | 3.25 | 0.93 | Medium | 0.52 | .60 |
| | Total | 3.61 | 0.62 | High | 3.40 | 0.63 | High | 2.66** | .00 |
| Environment management | Environmental management | 3.94 | 0.77 | High | 3.67 | 0.77 | High | 2.63** | .00 |
| | Help seeking | 2.68 | 0.89 | Medium | 2.67 | 0.85 | Medium | 0.11 | .91 |
| | Use of resources/ Resourcing | 3.33 | 1.12 | Medium | 3.02 | 0.97 | Medium | 2.44** | .01 |
| | Total | 3.13 | 0.69 | Medium | 3.01 | 0.66 | Medium | 1.44 | .15 |

** Statistically significant at 0.01, * Statistically significant at 0.05

Table 2 shows that SLs employed OLLS with the mean score between 2.68 and 3.98. ULs used OLLS with the mean score between 2.67 and 3.68. Self-monitoring/self-management strategies were used most by SLs and ULs (SLMean=3.98, ULMean=3.68), the environmental

management strategies were second (SLMean=3.94, ULMean=3.67), and the third most used strategies were time management strategies (SLMean=3.77, ULMean=3.48). The least used strategies by both groups were help seeking strategies (SLMean=2.68, ULMean=2.67). Among 15 sub-strategies, there were significant differences at the 0.01 level ($p < .01$) between SLs and ULs for 4 sub-strategies namely, elaboration strategies ($t=3.22^{**}$), self-regulation ($t=2.70^{**}$), environmental management ($t=2.63^{**}$), and use of resources ($t=2.44^{**}$) respectively.

Five SLs and another five ULs were randomly selected to take part in an interview and in a SR. All of five SL respondents reported that they always used metacognitive strategies. SLs allocated sufficient time and were able to access the online course to finish the tasks consistently. One of the SLs mentioned:

"I always access the online lessons during the weekend because there is no distraction and I had plenty of free time. I determined in advance which online quizzes and exercises I must complete. I noted my study schedule on the calendar to remind me and I strictly follow it." Kanokporn, P. (Interview: February 10, 2016).

In contrast, all five UL respondents lacked this type of strategies. Four ULs reported that they did not plan their study time and depended on friends to remind them when it was a time to study.

With regard to cognitive strategies, four of the SLs used all of cognitive sub-strategies, especially elaboration strategies. SLs took notes on important language structures and summarized each lesson for study. ULs did not report using these same strategies and stated that they were not able to summarize the lessons due to the abundance of information in the online course. One of the ULs pointed out that:

"There are so many,too many learning materials. I do not know where to start." Natchaya, L. (Interview: February 10, 2016).

In terms of resources management strategies, all the SL respondents reported that they used resources management strategies (environmental management and use of resources) to cope with various problems while learning English online. For example, they could find

quiet places and good Internet connectivity. They could ask peers about language ambiguities when they had problems with computers. However, all of ULs reported that they rarely used resources provided in the online course (e.g. online dictionary or other useful links) because they did not know how to find or use them.

Table 3: Perceptions of affection in online learning reported by SLs and ULs

| Affection | SL (n=262) | | | UL (n=84) | | | t | p-value |
|------------------|------------|------|--------------------|-----------|------|--------------------|--------|---------|
| | Mean | SD | Level of agreement | Mean | SD | Level of agreement | | |
| Attitude | 3.10 | 0.52 | High | 3.04 | 0.53 | High | 0.97 | .33 |
| Motivation | 2.85 | 0.39 | High | 2.64 | 0.39 | High | 4.15** | .00 |
| Internet Anxiety | 2.27 | 0.57 | Low | 2.26 | 0.62 | Low | 0.19 | .84 |
| Total | 2.75 | 0.35 | High | 2.61 | 0.38 | High | 2.94** | .00 |

** Statistically significant at 0.01, * Statistically significant at 0.05

Regarding affection in online learning's perception, Table 8 presents the agreement level of SLs and ULs' perceptions of the online English course. Both SLs and ULs expressed a high level of beliefs in the usefulness and advantages of the online English course (SLMean=2.75, ULMean=2.61). According to the results of the three sub-affectations, perception of attitude and motivation were at a high level of agreement while Internet anxiety perception was at a low level of agreement. There was, however, a significant difference at the 0.01 level ($p < .01$) between SLs and ULs ($t = 2.94^{**}$). This indicates that SLs had a higher positive attitude and motivation compared to ULs.

One of the three sub-affectations within the affection domain was perceived differently by SLs and ULs, with a significant difference at the 0.01 level ($p < .01$) for motivation ($t = 4.15^{**}$).

According to SR and interview, all of SLs had a very high level of motivation for learning and perceived that the online course was beneficial. Even though four of them preferred face-to-face classroom learning to the online course, they continued to study with low levels of

anxiety in the online course because they believed the online course was beneficial. One of the SLs said,

“Even though, I prefer to study with teachers, online learning is able to save my time because I can skip the parts that I have already known and I can study only a new topic. Sometimes teachers teach what I have already known because they must teach other students too.” Saowapak, H. (Interview: February 10, 2016).

In comparison, even though most of the ULs perceived the online course was beneficial, they felt that they were not familiar with this new learning environment and were quite anxious and worried about it. Therefore, they were not willing to learn via the online English course. Three of ULs mentioned that they did not think the online course promoted self-learning.

The relationships between the use of OLLS, affection in online learning and the online English learning outcomes

Table 4 shows the correlation analysis between the 342 participants’ use of OLLS and their learning outcomes using the Point Biserial Correlation analysis. The interpretation of the correlation was based on Brown (1988, p. 150). The value 0.50-1.00 indicates a high relationship, 0.30-0.49 indicates a moderate relationship and 0.10-0.29 indicates a low relationship.

Table 4: Relationships between OLLS’s level of use and learning outcomes

| Strategies | Online learning outcomes | | |
|----------------------|--------------------------|-------------------|---------|
| | rpb | Correlation level | p-value |
| Cognitive | 0.118* | Low | 0.020 |
| Metacognitive | 0.142** | Low | 0.004 |
| Resources management | 0.077 | No correlation | 0.075 |
| Total | 0.134* | Low | 0.006 |

**Correlation is significant at the 0.01 level (1-tailed)

* Correlation is significant at the 0.05 level (1-tailed)

As shown in Table 4, overall OLLS and online English learning outcomes were correlated significantly at the low level ($r=0.134^*$,

$p < 0.05$). In other words, students who used OLLS more were likely to achieve better learning outcomes. Two OLLS, cognitive and metacognitive, were correlated with the online English learning outcomes at a low level ($r = 0.118^*$, $p < 0.05$ and 0.142^{**} , $p < 0.01$ respectively). Metacognitive strategies had the highest correlation among the three strategies. On the other hand, no significant relationship between the use of resources management and the outcomes was found.

Table 5: Relationships between OLLS sub-strategy and learning outcomes

| Strategy | Sub-strategy | Online learning outcomes | | |
|----------------------|-------------------------------------|--------------------------|-------------------|---------|
| | | rpb | Correlation level | p-value |
| Cognitive | Rehearsal | 0.101* | Low | 0.030 |
| | Elaboration | 0.171** | Low | 0.001 |
| | Organization | 0.066 | No correlation | 0.109 |
| | Comprehension/ Critical thinking | 0.016 | No correlation | 0.383 |
| | Internet skills | 0.058 | No correlation | 0.140 |
| | Total | 0.118* | Low | 0.020 |
| Metacognitive | Self-regulation/Volitional | 0.144** | Low | 0.004 |
| | Time management | 0.157** | Low | 0.002 |
| | Goal setting | 0.095* | Low | 0.039 |
| | Self-monitoring/ Self-management | 0.137** | Low | 0.005 |
| | Self-evaluation | 0.059 | No correlation | 0.137 |
| | Concentration/ Effort regulation | 0.045 | No correlation | 0.203 |
| | Self-awareness | 0.028 | No correlation | 0.303 |
| | Total | 0.142** | Low | 0.000 |
| Resources management | Environmental management | 0.140** | Low | 0.005 |
| | Help seeking | 0.006 | No correlation | 0.458 |
| | Use of resources/ Resourcing | 0.121* | Low | 0.012 |
| | Total | 0.077 | No correlation | 0.080 |

* Correlation is significant at the 0.05 level (1-tailed)

** Correlation is significant at the 0.01 level (1-tailed)

As illustrated in Table 5, eight out of 15 of the OLLS were significantly correlated with the online English learning outcomes at the low level. Among OLLS's sub-strategies, elaboration strategies had the highest correlation ($r=1.71^{**}$, $p<0.01$); time management had the second highest correlation ($r=0.157^{**}$, $p<0.01$); and self-regulation had the third highest correlation ($r=0.144^{**}$, $p<0.01$) with the online English learning outcomes. However, it should be noted that seven of the OLLS were not significantly correlated with the online English learning outcomes.

The results from SR and interview were in line with the responses from the questionnaire which reported that SLs used both cognitive and metacognitive strategies in order to complete the online English learning tasks. For instance, all of the SLs took notes and made summaries of the online lessons and they repeated some difficult lessons before taking mid-term and final examination. In addition, all of SLs tended to manage study time and was discipline. In contrast, none of the ULs tended to use many cognitive and metacognitive strategies. One of the SLs stated:

"I am not worried that I would not have enough time to study. Just once a week, if you access the course..... take some notes and do the exercises immediately after reviewing the lessons, you will understand the lesson and you will not waste the time to review it again for the exam." Saiful, M. (Interview: February 13, 2016).

Table 6: Relationships between affection in online learning's level of agreement and learning outcomes

| Sub-affections | Online learning outcomes | | |
|------------------|--------------------------|-------------------|---------|
| | rpb | Correlation level | p-value |
| Attitude | 0.052 | No correlation | 0.166 |
| Motivation | 0.218** | Low | 0.000 |
| Internet Anxiety | 0.010 | No correlation | 0.423 |
| Total | 0.157** | Low | 0.000 |

* Correlation is significant at the 0.05 level (1-tailed)

** Correlation is significant at the 0.01 level (1-tailed)

As illustrated in Table 11, the correlation between affection in online learning's level of agreement and the online English learning outcomes was significant at the low level ($r=0.157^{**}$, $p<0.01$). It indicates that students with a higher degree of motivation, but lower anxiety could have more possibilities to success in the online English course. Among sub-affections, motivation had the highest correlation with the online English outcomes ($r=0.218^{**}$, $p<0.01$). No correlation was found in the rest.

Relevant comments stated in SR and interview corroborate the statistical results. The SLs said that they possessed a strong level of motivation to successfully complete the course; moreover, they had a good attitude towards online learning. One of SLs stated:

"This course helped me to be more responsible. Scores obtained from the tasks motivated me. Arranging time-table to finish those exercises kept me motivated too and I did it with enthusiasm." Saowanee, B. (Interview: February 9, 2016).

In comparison with SLs, the ULs tended to lack positive attitudes and strong motivation as exemplified in the following statement:

"I felt motivated when I studied in the classroom. Class attendance motivated me to attend the class. The teacher can answer my questions. In online learning environment no one can help me to clarify the points; I do not want to ask my friends because I trust the teacher more." Chanathip, M. (Interview: February 10, 2016).

Discussion

Online English language learning has been used at a university in the south of Thailand since 2002; however, due to the continuous development in Internet/online technology, there are many current and emerging challenges with this particular learning environment. The findings of this research, which focused on OLLS use, affection in online learning provide useful information that can help stakeholders better understand how students could become successful online

learners and how the instructors might help them in this mode of learning. The findings of this study are summarized and discussed as follows:

The differences in OLLS use between SLs and ULs, the different perceptions of affection in online learning between SLs and ULs

In terms of OLLS, there are significant differences between OLLS level of use between SLs and ULs. The results indicate that SLs significantly employed more OLLS than ULs. Metacognitive strategies were the highest level of use among SLs and ULs. It should be pointed out that the online English learning required all students to be more self-regulated since in the online course the time for completing each learning task was set and nonnegotiable. Moreover, students had to review their quiz scores and check whether they had completed all of the tasks. This may be explained in relation to the nature of the online English course that requires students to be more self-monitored & management, time managed, self-regulated, goal set. Otherwise they could not accomplish the course. Most of SLs had these skills and they were more self-regulated and self-monitored/self-managed than ULs. They aimed to achieve the course, set study time, accessed the course consistently, and checked quiz scores. These behaviors resulted in good learning outcomes. This is consistent with Amir (2006), Liu and Feng (2011) and Puzziferro (2008) that metacognitive strategies are the key and mostly used by achieving online learners.

The results also showed that cognitive strategies were the second most used strategy employed by both SLs and ULs. SLs used more cognitive strategies than ULs significantly. This can be explained that SLs consistently access the course to study and this particular online course required students consistently access learning materials and do exercises and quizzes for grades. As a result, it directly promoted cognitive skills, particularly elaboration strategies. Students needed to study all the materials before summarizing, taking notes, and comprehending many lessons on their own. This required high cognitive abilities in terms of both English subject matter and

Internet/computer skills. These findings are in line with Chen, Zhang, and Liu (2014) whose study revealed that 82 intermediate Chinese students used metacognitive strategies the most, followed by cognitive strategies when they learned listening lessons in Web-based CALL.

With regard to the level of agreement on affection in online learning, they were perceived by students at the high level. Attitude was at the highest degree of agreement in all three affection sub-categories. There were significant differences in the agreement level of overall affection in online learning' perceptions and sub-strategies in motivation between SLs and ULs. SLs were more positively motivated in learning English online than ULs. One possible explanation is that SLs had a specific goal and determination to accomplish the course. Passing the course was very important to them, and as stated by SLs, they gained benefits from independent learning. SLs might already have high metacognitive and cognitive abilities. Their motivation might have been higher because they were able to learn online English course without much trouble. This is consistent with Matuga's (2009) study, which indicated that high achieving online secondary students' motivation increased after finishing the course due to the confidence in their ability of learning. In contrast, low achieving students' motivation had decreased because they did not have goal-oriented behavior.

Another possible explanation of why ULs lacked motivation is that the students might have some dissatisfaction with the overall course design and the quality of the online learning tasks. Sun, Tsai, Finger, Chen and Yeh (2008) posited that the critical factors affecting students' perceived satisfaction that lessens students' motivation to learn online included course flexibility, course quality, perceived usefulness, and perceived ease of use.

The relationships between the use of OLLS, affection in online learning and the online English learning outcomes

This research also revealed a significant correlation at a low level between OLLS level of use, affection in online learning's level of agreement, and online English learning outcomes. For OLLS,

metacognitive had the strongest relationship, followed by cognitive strategies. However, resources management strategies had no relationship with online English learning outcome.

It can be explained that students who had more metacognitive strategies were the ones who could control their study well. Accordingly, this may lead to academic achievement because they could consistently access the course, study the lessons, and complete the learning tasks on a timely basis, all of which is critical to learners' success. The results are similar to those found in Amir (2006), Liu and Feng (2011) and Puzziferro's (2008) study which found that there were the relationships between self-regulated learning strategies and college students' online learning outcomes.

Based on the results, cognitive strategies were also correlated with online English learning outcome. This is because this online English course provided an abundance of learning materials and resources, and only students being able to cope with the heavy cognitive load and the bombardment of too much information could be successful in the course.

For resource management strategies, no relationship with online English learning outcome was found. This might be because the learning environment they were in was suitable enough for online learning, for example, the university provides a good Internet connection for all students. Therefore, it required minimum efforts to overcome the resource problems. Both SLs and ULs could use this type of strategy equally. In addition, students could immediately ask peers for clarification when it was needed since they might stay in the university dormitory and it was convenient for them to contact and ask for help from peers with minimum efforts.

According to affection in online learning, motivation was found to be the strongest correlation with online English achievement compared to other affection sub-strategies. One possible explanation may be related to self-learning skills. Students who did not possess self-learning skills tended to lack motivation associated with anxiety and lack levels of interest. ULs still preferred learning English in a

face-to-face classroom since they were not ready to learn independently. Ushida (2005) found that, in general, students had high anxiety at the beginning of the course due to a lack of familiarity, but later, as the course went on, that anxiety lessened.

Interestingly, even though correlations between OLLS and online English outcomes existed, it was only at the low level. There may be other possible factors that influenced online English learning outcomes. In fact, OLLS might help individual online students to overcome difficulties or problems in online learning in certain ways. However, there might still be other challenges in online English learning environment which students would encounter. Additionally, ULs used OLLS at the low level and had low motivation in learning online English course. It might imply that ULs are not ready to study online English course due to many factors, not only the factor of lacking of OLLS and motivation. This is in line with Chen, Chou, and Hung's study (2010) who examined online learning readiness of 1,051 students in three Taiwanese universities in 5 dimensions (1) computer/Internet self-efficacy, 2) self-directed learning, 3) learner control, 4) motivation for learning, and 5) online communication self-efficacy). It was found that the higher grade year students were more ready to study online course when compared to lower grade year students in all dimensions of online readiness scales. This was because most students still needed time to adapt themselves to a new learning mode since they had been learning within traditional mode for a long time and are still attached to it. Therefore, proficiency, maturity, and experiences in online learning could also play an important role in online learning.

Implications and Suggestions

Implications from this study can be drawn as follows:

1. Since technical problems and individual problems that students encountered are the main challenges in online learning, helping students to overcome these two challenges would increase the satisfaction with the new mode of learning and promote online learning

motivation. To solve technological problems, sufficient and effective access to the Internet and twenty-four hour connectivity of the Internet are also needed.

2. Interesting and practical online course design and content is very important. Sufficient explanations for the lessons and exercises are also required. Additionally, the design and content of learning tasks must be evaluated and revised from time to time.

3. Online language learning strategies (OLLS) training should be conducted before the course begins and throughout the course to encourage students' motivation to learn online. Moreover, interesting and motivating orientation at the beginning of the course must be implemented. In addition, the interaction between instructors and students must be increased in order to motivate students to take responsibilities for and control their own online learning.

4. Students 'readiness for online learning should be measured before the course starts. Low English proficiency students need to prepare themselves to deal with changing mode of learning. The measurement would include students' preference and style of learning, confidence, comfortable and competency in using Internet and computers, ability to engage in self-direct learning, and intrinsic and extrinsic motivation and positive attitude towards online learning.

5. To take an online course, online English students need assistance. The following model is proposed by the researcher as a guideline for a university offering an online course. The proposed model is illustrated in Figure 1:

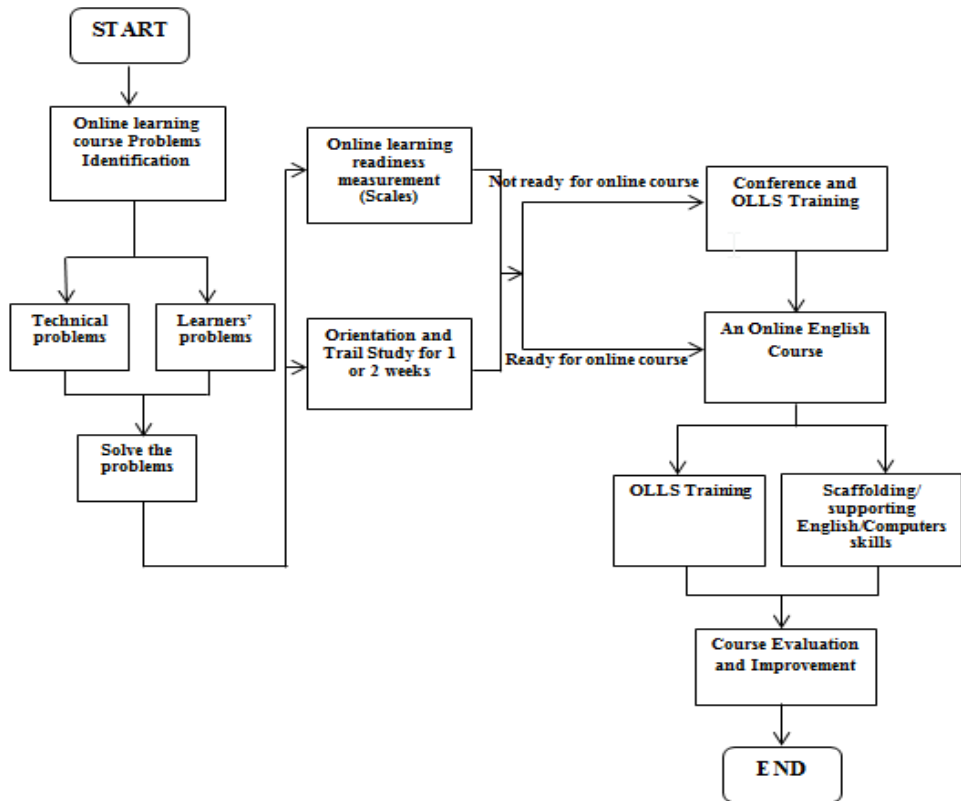


Figure 1: Procedure to improve online English course learning process

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