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Thai University Students' Self-Regulated Learning in an Online Learning Environment

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ABSTRACT

Language learners' achievement is influenced by a variety of psychological factors, including attention, self-confidence, and motivation. In addition to the list, self-regulated learning (SRL) is another essential psychological component of learning, as evidenced by research on learning and performance. Meanwhile, rapid changes in current conditions induced by COVID-19 have prompted a shift from traditional face-to-face to online learning. In this learning environment, learners and instructors are physically apart, and thus very little is known about how their learning is navigated. To better understand how learners manage learning, this study examines Thai university students' SRL application while taking an English course totally delivered online. Based on the administration of the 24-item Online Self-regulated Learning Questionnaire (OSLQ) at the end of the course, 75 out of the 84 students completed the questionnaire. Data analysis exhibited quite a high level of goal setting (GS) and environmental structuring (ES); however, they appeared to utilise a relatively lower level of task strategies (TS) and time management (TM). Overall, the findings underline the importance of instiling SRL in students and suggest that SRL may vary depending on academic contexts. The results contribute to our understanding of the association between learning environments and SRL, as well as providing practical pedagogical implications to enhance students' success.

Keywords: Thai learners; university students; OSLQ; online learning; English language

INTRODUCTION

It is widely acknowledged that technology and psychology can have significant impacts on education. Technologically, more options for learning environments have become available, and educators have gradually become more open to novel teaching methods integrating educational technologies and applications. Meanwhile, a myriad of psychological factors such as personality, attention, interest, motivation, and self-regulating learning (or SRL henceforth) has been acknowledged to exert a certain level of influence on academic achievement and success (Araka et al., 2020; Broadbent & Poon, 2015; Onoda, 2022; Pelikan et al., 2021).

The COVID-19 outbreak at the end of 2019 was a global occurrence affecting all activities, including entertainment, travel, and transportation. For instance, education has undergone a significant change that has never before occurred in history. Every country has been struggling to find the best way to deliver education and will likely continue to do so in the not-too-distant future. The actual classroom setting and conventional face-to-face learning have been instantly supplanted by online learning.

Since the COVID-19 outbreak, online education has exploded in Thailand, and it has been a frenzy of growth. Without notice or preparation from the perspectives of the teachers and students, the forced adoption of online learning can be rather agonising (Kanoksilapatham, 2021). For instance, many questions came up as a result of this unanticipated change in education brought on by COVID-19. Teachers were unsure if their students were prepared for this dramatic transition, whether it be technologically, psychologically, or simply financially for the less fortunate.

Similarly, teachers spent their time learning about educational technologies rather than preparing lessons. However, teaching language classes, which typically demand contact between students and teachers, is considerably more challenging.

Although previous research has asserted that SRL plays an essential role in online learning, there seem to be no SRL studies conducted in the context of Thailand. Furthermore, a few studies have looked into SRL in sports, education, and science (Conde Gafaro, 2019; Poitras & Lajoie, 2017). To the best of my knowledge, none has looked into English language online learning yet. This study is thus considered one of the initial efforts to scrutinise Thai university students' SRL strategies. The findings will be very beneficial in empowering students while providing insights to instructors on how to instil SRL strategies in students. Additionally, the integration of online learning as a promising alternative environment and SRL as a means of enhancing students' academic achievement will provide a sustainable pathway and transition for language learning.

LITERATURE REVIEW

Two principal concepts associated with the current study are presented in this section: online learning environments and SRL. This section begins with the online learning mode, its application, and its evaluation in the context of Thailand during the pandemic. Subsequently, SRL, the central conceptual framework of this study, was introduced, followed by its measurement in a traditional teaching environment. In response to the prevalence of online learning, the Online Self-regulated Learning Questionnaire (or henceforth the OSLQ) and its implementation in diverse contexts are reported.

ONLINE LEARNING MODE

During the COVID-19 pandemic across the globe, expedited by the speedy escalation of the pandemic situation and the quick transmission of the disease, a traditional face-to-face learning environment was put to a halt. Subsequently and unexpectedly, forced online learning was announced as the only option available to contain the pandemic, particularly in the education sector.

Online learning is educational instruction integrating web-based technology, allowing teachers and students to stay engaged completely asynchronously or with components of synchronous learning without located face-to-face class time. This sudden shift has evidently posed burgeoning challenges to educators in several contexts, and Thailand is no exception. In fact, online learning exhibits a variety of beneficial traits over conventional teaching models, including flexibility (e.g., convenient scheduling since no travel arrangements are necessary), accessibility (e.g., lessons are available from anywhere with an Internet connection), capacity (e.g., limitless learning opportunities for students), and cost-efficiency (e.g., relatively cheaper to build and maintain than on-premises lessons). Despite multiple advantages, online learning also has significant drawbacks that cannot be ignored. For instance, it makes the assumption that students and teachers are in possession of digital technology knowledge and gadgets. For students who are underprivileged or live in remote areas, such assumptions can be horrifying. Additionally, student-student and student-teacher interaction opportunities are considerably reduced by online learning (Kizilcec et al., 2017).

Massive Open Online Courses (MOOCs), one type of online learning, are a good example. Recently, the number of MOOC courses has increased significantly, attracting many online learners from around the world (Aldowah et al., 2020). In 2018, 11,400 MOOCs were launched by over 900 colleges worldwide, with about 2,000 courses available (Shah, 2018). Over 75% of MOOC participants are independent learners who are adults. Some of MOOC advantages are their availability for free and flexibility (Kumar & Al-Samarraie, 2019) and access to top-notch educational resources for higher education (Nagrecha et al., 2017). However, MOOC disadvantages or limited effectiveness are evident: the high dropout rates and the extremely low completion rate of only 2 per cent (Feng et al., 2019), lack of motivation (Khalil & Ebner, 2014), little teacher feedback (Li & Moore, 2018), and a lack of peer engagement and communication with friends and instructors (Rosé et al., 2015; Zheng, 2016). These information pieces add up to a challenge for MOOC creators and online instructors to figure out how to increase learners' retention and attentiveness so they can persist with online learning longer and learn more.

If MOOCs, a type of online learning that is professionally developed and offered internationally, suffer from a variety of constraints, it would be interesting to examine the effects of online learning provided to students in other contexts. Thai university students' participation in an online English language course was evaluated by Kanoksilapatham (2021, 2022), using validated collections of open educational resources (OER) as lessons corresponding to the goal language skills. The comparison of the pre-test and post-test results revealed a significant improvement in language skills. However, a significant attrition rate was reported (from 356 registered students to 189 completers). The interview results indicated that the students appeared to be struggling with this online learning. Several of them had some feelings of isolation or loneliness when learning online. In addition, some found it difficult to exhibit self-control in terms of the pace, the lessons to study, and the time devoted to each session. Additionally, because the lesson access took place at home, unavoidable family interruptions hindered their ability to study, not to mention the possibility of inconsistent Internet connection. Therefore, despite the many benefits that online learning can provide, these drawbacks cannot be overlooked because they seem to have a negative effect on students' progress.

SELF-REGULATED LEARNING OR SRL

SRL is known as a self-determined endeavour toward academic performance in educational psychology (Ergen & Kanadli, 2017; Zimmerman & Schunk, 2011). The three main and sequential phases of SRL are forethought (before learning or performing), performance (while learning efforts are being made to monitor their performances), and self-reflection (after performance or learning). Various subprocesses make up each phase. For example, planning, goal setting and environmental structuring are subprocesses of the forethought phase. Then, during the performance or learning phase, they are involved in task strategies and time management subprocesses. Finally, in the self-reflection phase, when an activity is complete, learners entertain the subprocesses of self-evaluation to help reflect on how they performed a particular assignment, why they earned a certain grade, and how they could improve their performance. Overall, SRL encourages students to take responsibility for their learning and activating their SRL strategies to achieve desired academic outcomes. SRL is a cyclical process consisting of a number of sub-processes. That is, each cycle repeats when learners reflect on what needs to be adjusted to prepare for subsequent tasks. Zimmerman (2002) asserts that learners need to exert different degrees of SRL for different learning tasks. Thus, SRL should be customised to accommodate individual learners' learning needs and contexts.

SRL has been a field of study that has gained relevance over the past few decades due to its close relationship to academic accomplishment. In other words, individuals who excel academically are more likely to have high levels of SRL, and vice versa (Ergen & Kanadli, 2017; Zimmerman, 2013). To measure SRL in a conventional face-to-face learning setting, Pintrich et al. (1991) developed the 24-item Motivated Strategies for Learning Questionnaire (or the MSLQ). The MSLQ has been adopted and adapted for use and tested for its reliability and validity across the educational paradigm and in different learning contexts, including Australia (Taylor, 2012), Iran (Feiz & Hooman, 2013), and America (Jackson, 2018). These studies congruently demonstrate that the MSLQ is an effective tool to assess SRL in a conventional face-to-face mode across a variety of samples and with reasonable confidence.

It is obvious that face-to-face learning contexts are different from those of online learning, and thus the MSLQ might not be an appropriate tool to measure SRL in an online learning environment. Given the increasing popularity of online education facilitated by Internet availability, the need to have an SRL measurement became indispensable. Barnard et al. (2009) thus developed a tool to measure SRL in online learning environments, namely the Online Self-regulated Learning Questionnaire (or the OSLQ). This questionnaire consists of 24 items, with a 5-point Likert response format and values ranging from strongly agree (5) to strongly disagree (1). These 24 items are associated with six SRL subprocesses: goal setting or GS (items 1-5), environment structuring or ES (items 6-9), task strategies or TS (items 10-13), time management or TM (items 14-16), help-seeking or HS (items 17-20), and self-evaluation or SE (items 21-24). The OSLQ has been tested for high reliability and validity in various contexts, substantiating that the OSLQ is an effective measure of SRL in online learning environments, e.g., in Hong Kong (Fung et al., 2018), in Russia (Martinez-Lopez et al., 2017), in Brazil (Rufini et al., 2021), and in Iran (Taghizade et al., 2020).

Numerous research has been carried out in online learning environments since the OSLQ's development, mostly at the higher education level and in various situations, e.g., in Chile (Pinto Santubera et al., 2020), in Hong Kong (Lau, 2021), in Malaysia (Lim et al., 2020), in America (Barnard-Brak et al., 2010) and in Indonesia (Harahap, 2020). The OSLQ implementation uniformly revealed a correlation between academic success and the SRL level. Additionally, some SRL research emphasised the significance of SRL in predicting students' academic success. To exemplify, Kizilcec et al. (2017) and Lee et al. (2019) discovered that defining goals could be a highly effective predictor of students' success. Moreover, they found that students who reported having strong SRL abilities in goal setting, self-evaluation, and task planning were more likely to review course materials, particularly during course evaluation. Furthermore, Kizilcec et al. (2017) discovered that defining goals predicted students' success in achieving their individual course goals. Overall, these SRL studies in online learning discovered that SRL enhances academic performance.

Despite MOOCs promise and popularity, the notoriously low completion rates and high attrition rates of MOOCs have been a pressing issue. One of the attempts to delve into this matter was by measuring SRL strategies that students contribute to enhancing motivation and promoting their engagement, persistence, and performance. Littlejohn et al. (2016) studied the relationship between SRL scores and MOOCS and discovered that there were significant disparities between MOOC students with high and low SRL scores in the areas of motivation and goals for participation. Jo et al. (2014) revealed that learners following appropriate goal setting participated longer in a MOOC, actively engaged in hands-on learning activities, and tended to review previous

course contents more. In light of these findings, MOOC instructors and designers should recognise the importance of SRL in MOOCs and should be able to support learners' SRL in MOOCs.

More recently, Handoko et al. (2019) were interested in finding out, with regard to SRL, the difference between MOOC completers and MOOC non-completers. Focusing on two MOOC courses offered on the Coursera platform with 65,227 registrations, 643 students completed the OSLQ measuring SRL in six subprocesses. The students were requested to identify if they were MOOC completers or non-completers of either course: 315 or 49.0% and 328 or 51.0%, respectively. One open-ended question at the end of the OSLQ elicited factors accountable for MOOC completion or incompletion. The comparison revealed that the two groups displayed only one significant difference in the goal-setting SRL subprocess.

Based on the studies reviewed, it is evident that SRL is pertinent to the MOOC learning context, offering recommendations to MOOC course designers and instructors on how to incorporate vital SRL into the design and delivery of MOOCs. Moreover, these studies elucidate that in a particular context, certain SRL subprocesses are more powerful contributors to learners' potential to complete a MOOC than others. Therefore, understanding learners' SRL application can enable course designers and instructors to develop course structures that better support MOOC learners.

At this juncture, with the pressure from COVID-19 and little success with online learning among Thai students (Kanoksilapatham, 2021, 2022; Sukman & Mhunkongdee, 2021), Thai scholars are confronted with a burgeoning challenge to identify strategies that help maximise and optimise Thai learners' learning outcomes. Given that SRL applications are context-sensitive (Schunk, 2001), it is intriguing to delve into the matter of Thai learners' SRL in the context of online learning. This study is considered one of the initial efforts to scrutinise Thai university students' SRL strategies. The findings will be very beneficial in empowering students while providing insights to instructors on how to instil SRL strategies in students.

METHODS

This study is quantitative in nature, with the objective of examining Thai university students' online SRL when engaging in an English language skill course. On this note, online learning, as used in this study, is loosely defined as an umbrella term that refers to educational instruction that uses the Internet to enable teachers and students to interact while not physically present in a classroom.

INSTRUMENT: THE OLSQ

The OLSQ employed in this study was based on the one originally developed by Barnard et al. (2009) and subsequently verified and validated to be appropriate and highly reliable for gauging students' SRL levels in online learning environments. The questionnaire consists of two parts. The initial part required the participants to complete personal information, including gender and age. The second part consists of six OSLQ subscales associated with six SRL subprocesses: *goal setting* (GS), *environmental structuring* (ES), *task strategies* (TS), *time management* (TM), *help-seeking* (HS), and *self-evaluation* (SE). Each subprocess is represented by 3 to 5 items, totalling 24 items. The breakdown of the items for individual subprocesses is as follows: GS1-5, ES1-4, TS1-4, TM1-3, HS1-4, and SE1-4. These items elicit a 5-point Likert response format, with values ranging from 1 (strongly disagree) to 5 (strongly agree).

It should be noted that this particular learning context and Thai university students necessitate three minor modifications to the OSLQ. First, TS3 (*I prepare my questions before joining a discussion forum.)* does not seem to be viable for this study. The course integrated a substantial amount of group discussion facilitated by the availability of the breakout rooms, in which the teacher could occasionally visit and make comments. However, no activities or features like or similar to discussion forums were included. Therefore, the final part of this item was modified (*I prepared my questions before* ***joining the class****.)* Second, given the current situation regarding the prevalent use of communication technologies in Thailand, a phrase reflecting Thais' preference for certain social media platforms was added at the very end of HS4 (*I am persistent in getting help from the instructor through email* ***and other social media platforms (like LINE and FaceBook))***. Finally, to facilitate some participants' relatively limited English proficiency, the questionnaire was translated into Thai by the researcher, who was later endorsed for accuracy by a Thai university instructor with expertise in translation. In this study, 24 items of the OSLQ in English and Thai were concurrently presented.

CONTEXT AND PARTICIPANTS

The participants are second-year students from a medium-sized public university, specifically from the Faculty of Management Science, majoring in community development in the 2021 academic year. Their participation in this project is entirely voluntary. These students enrolled in a compulsory language course, English Conversation and Discussion, that satisfies the faculty's general education requirement. It was delivered by the researcher entirely in an online mode. The solid 3-class period schedule (50 minutes for each class period) for class meetings in this study remained constant throughout the semester, being set by the university registrar, allowing the teacher and the students to interact synchronously. This is to ensure that every student can attend the class without time conflict with other courses taken. This course had a total enrolment of 84 students.

INSTRUCTIONAL DETAILS

The course aims to develop listening and speaking skills in daily life, formal and informal conversation, discussion in different situations, and oral presentation. Based on the detailed online course syllabus shared with the students covering a total of 15 weeks, some of the ten lesson topics include asking questions; describing things; describing places, describing people; describing past events, making plans, and giving suggestions. The course syllabus includes not only the course description but also other essential course information such as evaluation, interesting websites for those interested to learn more about the topics, and multiple channels of communication with the teacher outside the class (e.g., telephone, LINE application, and email).

As for instruction, the first week of the semester was reserved for housekeeping purposes, including general agreements, classroom participation, recommendations when the students were afflicted by COVID-19, and the selection regarding their preferred instructional platforms. In this course, ZOOM was chosen by the students as the instructional platform, whereas the Google Classroom application was for the teacher to collect scores. One week at the beginning of the semester was for the course introduction (during which the course syllabus was explained in detail for mutual understanding and clarity); one week at the end of the semester for wrap-up sessions, emphasising the deadline to submit presentation slides accompanying their final presentation, alerting them of communication channels after the final week, and encouraging them to express

any concern that they might have about the assessment. Two weeks were set aside for midterm and final presentations. The remaining ten weeks were devoted to the ten topics of the course. The materials for each topic were devised by the teacher and shared via the LINE application with the students at least three days before the class.

Each week covers three class periods. The first-class period began with the teacher reiterating the goals of the weekly lessons, which were typically followed by lecture-based instruction. This instruction highlighted specific focal language use and patterns pertaining to individual topics. The second-class period was devoted to language activities and exercises designed to enhance student-student interaction and student-teacher interaction through the facility of breakout rooms available from ZOOM. Through this channel, it was expected that the teacher's timely and respectful feedback could strengthen the teacher-student relationship. The third-class period of the ten weeks was for online quizzes and exercises associated with the course topics. As described in the course syllabus, the scores on these quizzes provided the major source of the coursework scores. The quizzes were either selected from different sources, including Quizziz.com and Kahoot, or those developed by the teacher and delivered through the Mentimeter Application.

In addition to the coursework scores described above, two projects were assigned as midterm and final examinations. The midterm project is a pair work; the final project is a group work, consisting of five class members focusing on promoting tourist attractions of a local community they are familiar. In addition to giving the students the opportunity to implement what was learned in their presentations, pair and group work was aimed to accommodate the students' potential need for social contact and interaction, which was impaired during the pandemic. The pair and group members were independently formed by the students. Upon the teacher's approval of the final project topic, the content of the presentation in English was developed and scaffolded by the instructor via the LINE application.

DATA COLLECTION PROCEDURES

After the submission of their final project toward the end of the semester, the students were requested to complete the OLSQ available for access for two weeks using the resource Google Forms. A link to access the form was shared with the students via LINE. Participation in this survey was completely voluntary, and only those who agreed to participate in this activity completed the informed consent form. At this point, detailed information describing the study purpose and the online survey link as a Google Form was provided in the LINE chat. All participants were assured that their responses would remain anonymous and confidential and had no connection with grading. After two weeks, the system was closed, and no more submission of responses was possible. To facilitate the students' decision to complete the questionnaire, it was made clear that the questionnaire's main focus was on their behaviour while engaging in online learning environments. With the information gathered from this questionnaire, teachers will be better equipped and prepared to accommodate the students' needs more effectively in the future.

DATA ANALYSIS

The responses to the 24-item OSLQ were quantitatively analysed, using descriptive statistics to describe Thai university students' SRL in an online learning environment.

RESULTS

Out of the class of 84 students, 75 responses were obtained. The comparatively high response rate could be attributed to the nature of the questionnaire implemented, which focused specifically on several facets of each student's online learning. It is also possible that, when offered the opportunity to have their opinions heard, they were relatively more inclined to participate in the questionnaire completion activity. Based on the demographic data obtained, 78.7% or 59 responses are from females, and 16 responses, or 21.3% are from males. The respondents' mean age is 19.29 years, and the age range is from 18 to 22 years old, with most of the 52 respondents (or 69.33%) being 19 years old; 19 respondents (25.33%) were 20 years old, two respondents (2.66%) of 21 years old, and one respondent (1.33%) of 18 and 19 years old each.

The analysis of questionnaires completed was statistically analysed and presented in Table 1. Based on the following cut-offs, corresponding interpretations regarding the respondents' use of SRL subprocesses are as follows: the average of 4.20-5.00 = very high, 3.40-4.19 = quite high; 2.60-3.39 = neutral, 1.80-2.59 = quite low; and 1.00-1.79 = very low).

TABLE 1. Mean score and standard deviation of each item and subscale of SRL (n =75)

Item		$\bar{X}$	*SD.*	Interpretation
FORETHOUGHT PHASE				
	1. Goal Setting (GS1-GS5)			
1	GS1: I set standards for my assignments in online courses.	3.73	0.88	quite high
2	GS2: I set short-term (daily or weekly) goals as well as long-term goals (monthly or for the semester).	3.64	0.78	quite high
3	GS3: I keep a high standard for my learning in my online courses.	3.91	0.90	quite high
4	GS4: I set goals to help me manage study time for my online courses.	3.80	0.81	quite high
5	GS5: I don't compromise the quality of my work because it is online.	3.57	1.03	quite high
	Mean	**3.73**	**0.89**	**quite high**
	2. Environment Structuring (ES1-ES4)			
6.	ES1: I choose the location where I study to avoid too much distraction.	3.80	1.01	quite high
7.	ES2: I find a comfortable place to study.	3.56	1.19	quite high
8.	ES3: I know where I can study most efficiently for online courses.	3.79	0.98	quite high
9.	ES4: I choose a time with few distractions for studying for my online courses.	3.69	1.07	quite high
	Mean	**3.71**	**1.06**	**quite high**
PERFORMANCE PHASE				
	3. Task Strategies (TS1-TS4)			
10.	TS1: I try to take more thorough notes for my online courses because notes are even more important for online learning than in a regular classroom.	3.59	0.92	quite high
11.	TS2: I read aloud instructional materials posted online to fight against distractions.	3.51	1.01	quite high
12.	TS3: I prepare my questions before joining a class.	3.16	0.99	neutral
13.	TS4: I work extra problems in my online courses in addition to the assigned ones to master the course content.	2.95	1.09	neutral
	Mean	**3.30**	**1.03**	**neutral**
	4. Time Management (TM1-TM3)			
14.	TM1: I allocate extra studying time for my online courses because I know it is time-demanding.	3.57	0.93	quite high

15.	TM2: I try to schedule the same time every day or every week to study for my online courses, and I observe the schedule.	3.28	0.99	neutral
16.	TM3: Although we don't have to attend daily classes, I still try to distribute my studying time evenly across days.	3.37	0.96	neutral
	Mean	**3.41**	**0.96**	**quite high**
	5. Help-Seeking (HS1-HS4)			
17.	HS1: I find someone who is knowledgeable in course content so that I can consult with him or her when I need help.	3.93	0.96	quite high
18.	HS2: I share my problems with my classmates online, so we know what we are struggling with and how to solve our problems.	3.93	0.92	quite high
19.	HS3: If needed, I try to meet my classmates face-to-face.	3.40	1.29	quite high
20.	HS4: I am persistent in getting help from the instructor through email and other social media platforms (like LINE and FaceBook).	3.33	1.08	neutral
	Mean	**3.65**	**1.11**	**quite high**
REFLECTION PHASE				
	6. Self-Evaluation (SE1-SE4)			
21.	SE1: I summarise my learning in online courses to examine my understanding of what I have learned.	3.59	0.92	quite high
22.	SE2: I ask myself a lot of questions about the course material when studying for online courses.	3.51	0.98	quite high
23.	SE3: I communicate with my classmates to find out how I am doing in my online classes.	3.55	1.07	quite high
24.	SE4: I communicate with my classmates to find out what I am learning that is different from what they are learning.	3.79	0.96	quite high
	Mean	**3.61**	**0.98**	**quite high**

As shown, the respondents seemed to apply a relatively high level of SRL across the five sub-processes. The highest mean score was related to GS, followed closely by ES, with mean scores of 3.73 and 3.71, respectively. The lowest mean score of 3.30 was in the SRL subprocess of TS. At the level of individual items of each subprocess, two items of TS (TS3: *I prepare my questions before joining a class*.) and (TS4: *I work extra problems in my online courses in addition to the assigned ones to master the course content*.) received the lowest mean score of 3.16 and 2.95, respectively, pulling the mean score of the TS subprocess to the lowest of all (3.30).

DISCUSSION

This study aims to determine the level of Thai university students' application of six subprocesses associated with SRL when exposed to online learning of an English course. As presented earlier, the students exhibited quite a high level of goal setting (GS) and environmental structuring (ES); however, they seemed to utilise a comparatively lower level of task strategies (TS) and time management (TM). Specifically, as far as TS is concerned, preparing questions prior to classroom discussion was not commonly executed (TS3), nor was working on extra problems in addition to assignments (TS4). These findings and others are discussed as follows:

First of all, the highest mean score of GS or goal setting was contributed mainly by GS3 (*I keep a high standard for my learning in my online courses*.) and GS4 (*I set goals to help me manage study time for my online courses*.), with mean scores, are 3.91 and 3.80, respectively. The GS subprocess has been identified as one of the significant factors distinguishing MOOC completers from non-completers and predicting learning achievement (e.g., Davis et al., 2016;

Handoko et al., 2019; Kizilcec et al., 2017; Lee et al., 2019; Littlejohn et al., 2016). In this study, the course syllabus containing a thorough description of the course objectives and pertinent activities was shared with the students at the beginning of the course. Moreover, the goals of weekly lessons were prompted at the onset of each weekly class. Therefore, before each weekly class, students could be expected to be aware of the instruction's goals, the overview of assessments, and the anticipated time commitments for course activities. To elaborate, they were made aware of the value of English as a tool to develop their communities and for global communication. In so doing, setting learning goals could be supported and help the students develop, devise, and manage their learning strategies to attain the goals.

Jouhari et al. (2015) found that a high level of SRL was mostly achieved through environment structuring (ES), indicating this subprocess is one of the predictors of final grade and satisfaction. In this study, ES was identified as the second-highest mean score after GS. The two highest mean scores of the ES subprocess are ES1 (*I choose the location where I study to avoid too much distraction*.) and ES3 (*I know where I can study most efficiently for online courses*.). Both of them are somewhat equally rated (3.80 and 3.79, respectively). In scrutiny, ES1 and ES3 overlap to a certain extent; thus, their similar mean scores were not surprising. To provide accounts for these findings, reference to Kanoksilapatham's 2021 and 2022 findings is relevant. A number of Thai students found online learning quite frustrating, including difficulties with Internet access, digital gadgets, and other household issues generating distractions (noise, household chores, or responsibilities expected from family members). Katz et al. (2021) maintain that technological difficulties encountered during online learning could lead to decreased online learning proficiency. Therefore, the ability to manage their learning environment is pivotal. However, based on the relatively high mean scores of ES1 and ES3, the students at the time of this study seemed to be quite comfortable with online learning environments. It should be noted that data collection for this study was conducted around October 2021, approximately 18 months after Thailand's mandate to adopt online instruction. As such, the students have developed familiarity and comfort with the technology used for online learning and other procedures regarding how online instructions are delivered. They were somehow prepared and settled with the location so that they could stay focused and learn to manage their learning environment convenient for learning.

In contrast to GS and ES, which received a rather high level of application, task strategies (TS) and time management (TM) received relatively lower mean scores. Specifically, as far as TS is concerned, TS3 (*I prepare my questions before joining a class*.) and TS4 (*I work extra problems in my online courses in addition to the assigned ones to master the course content*.) have mean scores of 3.16 and 2.95, respectively. As for TS3, it is possible that the students might not have time to read the material shared with them before class. Moreover, given the course materials are in English, they might lack understanding of the course materials, resulting in their inability to prepare questions before joining an online class. Another psychological factor is the shyness to ask questions. This negative trait persists even in Thai students' online learning, as found by Flores et al. (2021). Other possible explanations for the low application of TS3 include Thai students feared that they were wasting their classmates' class time and they did not want to appear incapable (Farrelly & Sinwongsuwat, 2021). In fact, the students in this study were encouraged by the teacher to ask questions via the LINE application. As happened in this course, questions were usually asked after the class. This phenomenon corresponds with what Kanoksilapatham (2021) reported. That is, due to online communication, some Thai learners felt more comfortable asking questions through channels where they could conceal their identity. Therefore, based on the low scores of TS and Thai students' behaviours, to make the most out of online lessons, a flipped classroom

might be a viable solution, allowing them to complete reading materials outside the class first. Then, questions from them can be discussed in the classroom. However, to achieve this, scaffolding is needed to inspire them to take an active role in the discussion, particularly in an English class.

TS4 (*I work extra problems in my online courses in addition to the assigned ones to master the course content*.) received the lowest mean score of all. Throughout the semester, the students were encouraged to explore further online language exercises. However, from the TS mean score, the students did not seem to follow the teacher's suggestions. Possibly, they might believe the materials provided are adequate; thus, there is no need to look for other sources to help them get through the course. Moreover, given that this course included numerous quizzes focusing on specific topics and spacing throughout the course, they would believe that concentrating on the materials offered would be adequately beneficial.

For time management or TM, TM2 (*I try to schedule the same time every day or every week to study for my online courses, and I observe the schedule*.) and TM3 (*Although we don't have to attend daily classes, I still try to distribute my studying time evenly across days*.) were infrequently applied (with the mean scores of 3.28 and 3.37, respectively). This course was described as being moderately regimented and very procedural, with precisely scheduled class meetings for both the time and day. Furthermore, the students were given step-by-step instructions to complete the quizzes and assignments. Had the lessons not been online, the class would have been far more flexible and adaptable, allowing the teacher to change up the plans and activities as needed and the students to allocate study time and create a study schedule that works for them. Thus, by structuring these course elements for learners, the requirement for them to initiate their own strategies, as well as the need for time management, may have been reduced.

Help-seeking, or HS, was found to have quite a high level of application in this study. However, the scrutiny demonstrates that HS4 (*I am persistent in getting help from the instructor through email and other social media platforms (like LINE and Facebook*.) is the only statement with a 3.33 mean score. In contrast, HS1 (*I find someone who is knowledgeable in course content so that I can consult with him or her when I need help*.) and HS2 (*I share my problems with my classmates online, so we know what we are struggling with and how to solve our problems*.) received the highest mean score of 24 items (3.93). A close look at these findings can be quite elucidating. The relatively low mean score of HS4 does not mean that the students did not try to seek help. Meanwhile, the mean scores of HS1 and HS2 suggest that their peers and some knowledgeable persons are the ones they turned to for help or support as far as online learning is concerned. Part of the reason for these findings is that the course was structured in such a way that two projects were to be completed for the midterm and the final exams. The pair work midterm project allowed the students to independently choose their partners, whereas the group work final project allowed them to have up to five members. These tasks possibly compelled them to interact and collaborate with others (be they classmates or people outside the classroom for extra help), compensating for any potential loneliness and isolation.

Finally, self-evaluation or SE displays quite a unified picture, with a narrow range of mean scores from 3.51 to 3.59, except SE4 (*I communicate with my classmates to find out what I am learning that is different from what they are learning*.), which averages 3.79. An examination of SE4 is quite revealing because it corroborates previous HS findings, highlighting the value of classmates or peers in online language learning.

All in all, the current study highlights the role of SRL in an online learning environment of a language course. This study contributes to the growing area of online learning research by

exploring Thai university students' SRL and its subprocesses. The findings underscore the relevance of SRL in online learning. As shown, several SRL subprocesses are working in tandem in promoting and maintaining students' SRL. Pedagogically, this study illuminates particular aspects of SRL subprocesses that course instructors and instructional designers could consider to strategically help support learners in achieving learning outcomes.

CONCLUSION

As an attempt to elucidate how learners handled online learning and since SRL is one of the most integral psychological factors that potentially determine the learners' academic performance and achievement, this paper focuses on Thai university students' SRL in a language course in an online environment. While this study offers insights into SRL subprocesses that can contribute to online learning, the findings need to be considered in light of some limitations. First, this study is based on the student's self-reported assessments of their SRL, and thus potential bias in the questionnaire responses is quite imminent. Consequently, integrating other methods, such as interviews and observation, might triangulate the data and reduce bias. Moreover, other variables that might influence the findings need to be controlled, including the choices of online platforms employed and the characteristics of the course (be it a content or skill course). Finally, this study focused on Thai university students' SRL measured at the end of the semester, so it would be interesting to see if these students' SRL application behaviours differ if the OSLQ were administered at different points in time and which SRL strategies differ or stay the same when assessed at different periods.

Additional studies are in line to shed further light on the role of SRL in learning. As a number of scholars cautioned (Schunk, 2001), SRL is highly contextualised or context-sensitive (be it academic discipline, learners' age, gender, and culture), and the effectiveness of SRL in predicting learning outcomes may vary. Finally, it is highly possible that some of the items on the OSLQ need to be adapted, collapsed, or even discarded to accurately address individual learning contexts. In short, future research is warranted to further explore the role and application of SRL.

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