An Attempt to Investigate the Correlation between Online Self-regulation and Self-efficacy in English Learning[1]

Nguyen Thi Diem Ha[2], Yersin University of Dalat, Dalat, Vietnam

Abstract

This study examined the correlation between online self-regulation and self-efficacy in English learning using the questionnaire responses of 48 third-year university students. Principal component analysis reduced the online self-regulation to four valid sub-scales named help-seeking, goal setting, environment structuring, and self-evaluation. Meanwhile, the self-efficacy showed only two sub-scales labelled speaking and writing, and listening. Cronbach's alpha analyses confirmed all the scales and sub-scales to reach acceptable reliabilities. Pearson coefficients demonstrated the existence of statistically significant relationships between some sub-scales of self-regulation and that of self-efficacy. Regression analyses confirmed that the time management sub-scale of English learning self-regulation was a predictor for listening, writing, and reading sub-scales of self-efficacy. The findings of this study may be helpful for the design and implementation of future online English learning courses.

Resumen

Este estudio examinó la correlación entre la autorregulación en línea y la autoeficacia en el aprendizaje del inglés utilizando un cuestionario aplicado a 48 estudiantes universitarios de tercer año. El análisis de componentes principales redujo la autorregulación en línea a cuatro subescalas válidas denominadas búsqueda de ayuda, establecimiento de objetivos, estructuración del entorno, y autoevaluación. Mientras tanto, la autoeficacia mostró solo dos subescalas etiquetadas como hablar y escribir, y escuchar. Los análisis alfa de Cronbach confirmaron que todas las escalas y subescalas alcanzan confiabilidades aceptables. Los coeficientes de Pearson demostraron la existencia de relaciones estadísticamente significativas entre algunas subescalas de autorregulación y la de autoeficacia. Los análisis de regresión confirmaron que la subescala de gestión del tiempo de la autorregulación del aprendizaje del inglés era un predictor de las subescalas de autoeficacia de escuchar, escribir y leer. Los hallazgos de este estudio pueden ser útiles para el diseño e implementación de futuros cursos de aprendizaje de inglés en línea.

Introduction

The COVID-19 has forced schools and universities close down around the world (United Nations Educational, Scientific, and Cultural Organization, 2020). In Vietnam, such a closure happened from February to May in 2020. Millions of university students were unprecedentedly forced out of the classroom. As a result, the universities had to remotely educate their students through online teaching and learning. Many people doubted that the unplanned application of online teaching and learning would lead to a good result (Linh, 2020). They believed that teachers could not accomplish their job effectively because they had insufficient training, had little time for preparation, and were very anxious. The students, on the other hand, with poor experience on this type of distance education, might have thought that it was a situational circumstance that would thus compromise the quality of their learning. Several studies on online teaching and learning in Vietnam during this unprecedented time have been conducted. While some researchers claim that most educational institutes acted quickly to help teachers start teaching online (Pham & Ho, 2020), a survey shows that a significant number of teachers did not receive any help (Vu et al., 2020). It also seems that there was not much support from educational institutes for students to prepare for their courses.

Linh and Trang (2020) demonstrated that students felt less pleased about taking their courses in the online settings during the coronavirus pandemic compared to being in traditional classroom environments . Their learning time was also less than before the school shutdown (Tran et al., 2020). Despite several valuable studies including those mentioned above, however, there has been no investigation into the students', especially Vietnamese English as a Foreign Language (EFL) undergraduates', self-regulatory strategies during their unfamiliar online courses and their self-efficacy effects.

Self-regulation in online learning was found to be a powerful tool for understanding students' self-efficacy (Su et al., 2018). Investigations in traditional classrooms revealed that self-regulation and self-efficacy in learning have an intricate link (Pajares, 2008; Zimmerman & Schunk, 2008). Learners who effectively employed self-regulation strategies tended to possess higher self-efficacy and achieve better academic learning outcomes in face-to-face learning environments. Thus, it is reasonable to assume that the extent of closeness between students' online self-regulation and self-efficacy may indicate something helpful about their online courses, such as the students' readiness for their course and learning effectiveness.

This study examined the correlation between online self-regulation and self-efficacy in English learning and pointing out some possible implications of the student's readiness and course's effectiveness. It aims not to

[1] This is a refereed article. Received: 29 October, 2020. Accepted: 4 June, 2021.
[2] diemhamikawa@gmail.com

evaluate students' online courses during the COVID-19 school shut down, but to provide scientific evidence that may deepen our understanding of the student perception towards their online learning process. Assuming that online courses are not just a temporary means of coping with the COVID-19 university closure, this study provides empirical evidence in the hope that teachers and educational administrators can use it to improve future online learning courses.

Literature Review

Online teaching and learning

Online learning has several different names such as online teaching and learning, E-learning, Web-based instruction, virtual learning, and Internet-based learning (Urdan & Weggen, 2000). It has five development periods, the last of which is from 2005 to present time, referring to mobile learning (Herrington et al., 2005; Mortera-Gutiérrez, 2006; Pilla et al., 2006). Online learning settings are different from traditional face-to-face learning environments, which are characteristics of a classroom with the presence of teacher and learner, operation in real-time, teacher-control, and linear teaching methods (Dabbagh & Bannan-Ritland, 2005). Synchronous and asynchronous learning are two types of online learning. The asynchronous, which takes advantage of the Internet time-delayed functions, is the most popular. Research has pointed out that faculty members faced many challenging tasks when teaching online compared to delivering a lecture in face-to-face courses (Gerlich, 2005). The teacher had to spend comparatively much more time answering students' questions and evaluating their reports (Wegmann & McCauley, 2008).

Self-efficacy, self-regulation and online self-regulation

Self-efficacy originates in Bandura' social cognitive theory (Bandura, 1977, 1986, 1997). This conceptual term relates to human beings' ability to self-organize, self-reflect, and self-regulate. Self-efficacy plays a crucial role in controlling self-regulated learning. Learners with high self-efficacy tend to employ better self-regulatory strategies (Pajares, 2006). Bruning et al. (2004) considered self-regulated learning the student's ability to "control all aspects of one's learning, from advance planning to how one evaluates performance afterward" (p. 117). Self-efficacy and self-regulated learning, also known as self-regulation, are not the same. The first one is the student's belief that he or she can learn or carry out actions at certain levels (Bandura, 1997), whereas the second one means a student's "self-generated thoughts, feelings, and actions that are systematically designed to affect" learning (Schunk & Zimmerman, 2007, p. 7).

Self-regulation is a term used when applying Bandura's social cognitive theory of self-efficacy for self-regulated learning. Self-regulation theories often deal with metacognitive performance, use of strategies, and motivational control (Zimmerman, 1990). As early as the 1980s, researchers began to pay attention to self-regulation, and investigate its role in learning strategies. Schunk (1989) treated self-regulation as a student's self-regulated thinking, sense, and performance to orienting her or him to achieve learning goals. In his papers published a year later, he reported on the role of students' self-regulation on goal setting and self-efficacy (Schunk, 1990). Ertmer et al. (1996) regarded self-regulation as personal motivation and ability to carry out, control, and assess different practices to effectively gain knowledge. His team examined the role of self-regulation of the learners in their changing attitudes towards case-based instruction. Zimmerman and Risemberg (1997) refer to self-regulation as the students "strategic efforts to manage their own achievement through specific beliefs and processes" (p. 105). Hofer et al. (1998) saw self-regulation as an indispensable component to understand how well a student does in the classroom. Self-regulated learning strategies also have a relationship with various other learning aspects of the learners such as motivation (Ushioda, 2006), academic achievement (Hilden & Pressley, 2007), autonomous learning behaviour (Kormos & Csizér, 2014), and English language proficiency (Bai et al., 2014).

Barnard et al. (2009) said that self-regulation in online learning environments to some extent differs from that in traditional face-to-face classrooms. They developed a questionnaire which they successfully used for studies on online relating self-regulated learning settings (e. g., Barnard et al., 2009; Zheng et al., 2016; Su et al., 2018). This questionnaire consisted of six parts including goal setting, time management, environment structuring, help-seeking, task strategies, and self-evaluation. Online self-regulation possesses a positive relationship with student learning motivation (Chang & Wu, 2003). Students' self-regulatory learning process, of which students' self-regulation skills can increase by help from the teacher, also relates to learner's achievement in computer-based learning environments (Winters et al., 2008). Another study showed that online self-regulatory strategies could play a predictive role in internet information searching strategies (Tseng et al., 2014).

Self-efficacy with self-regulation and online self-regulation

Bandura (1977, 1986, 1997) described self-efficacy as the beliefs in one's abilities to perform tasks and achieve goals. In education, self-efficacy implies the confidence in learner's capability to self-monitor on motivation, autonomy, and learning environments. Students with better self-regulation profile have a higher self-efficacy, and self-efficacy, in turn, has a positive relationship with students' performing tasks and with intrinsic motivation (Bandura & Schunk, 1981). On the other hand, both self-efficacy and self-regulation are influenced by some factors such as self-assessment and self-observation. A student with a suitable goal setting in self-regulation appears to enhance his or her skills, learning achievement, and self-efficacy, which in turn, leads him or her to engage in learning challenges (Schunk, 1990).

It was not until the last decade that the relationship between self-efficacy and other aspects of English learning attracted researchers' attention. Using a numerical taxonomy technique to analyze questionnaire responses of the students, Chen and Lin (2009) demonstrated that learners with high writing self-efficacy, and low writing anxiety improved their scores in tests of written English. Meanwhile, employing structural equation modelling in his processing data, Woodrow (2011) found that students with high efficacy tended to have high effort perceptions as well as practice. Another study on strategy use in learning English showed that self-regulation and self-efficacy had a positive relationship (Anam & Stracke, 2016). Students who possessed high efficacy were likely to use learning strategies more frequently.

Despite relatively abundant studies on the association between self-regulation and self-efficacy and other learning aspects in traditional classrooms, the number of works on online learning environments is moderate. Some valuable investigations are those of Winters et al. (2008), Artino (2008), Cho and Shen (2013), and Tseng et al., (2014). Concerning the second language acquisition area, there is even less research available, except a few such as Chang (2005), Lai and Wu (2011), Kissau (2012), and Wu and Yang (2016), to name a few. In this field, the research of Su et al., (2018) may be one of the most recent successful works examining the relationship between online self-regulation and self-efficacy in learning English as a foreign language.

In summary, Bandura (1977, 1986, 1997) theorized that one's self-efficacy comes from the influences of four sources named mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. In education, there is a need to nurture the students' self-efficacy beliefs to achieve the target learning outcomes. Pajares (2006) pointed out that the nurturing process should be based on the above mentioned four influential sources of which the most important one was mastery experience. In a learning process, a learner's ineffective self-regulation may result in his or her low self-efficacy that, in turn, leads to poor academic achievement. That means students benefit from the teacher's help in their design of goal setting, self-motivation, emotional control, employment of learning strategies, self-monitoring, help-seeking, and self-evaluation (Zumbrunn et al., 2011). Thus, the closeness of a relationship between self-regulation and self-efficacy may indicate not only how well the students have prepared for a learning course, but also how well they will achieve learning outcomes.

Using the questionnaire responses of EFL university students who studied online, the present study tried to answer the following questions:

1. *Do the students' online self-regulation and self-efficacy fall into distinct sub-scales?*
2. *Is there any correlation between every pair of these sub-scales?*
3. *Can any sub-scale of the students' online self-regulation serve as a predictor for self-efficacy?*

Methodology

Research design

The present study employed a descriptive and inferential quantitative research design that used an adapted questionnaire to gather data on the participants' online self-regulated strategies and self-efficacy together along with their gender. These quantitative data were necessary to examine the extent of the relationship between the students' online self-regulation and self-efficacy and whether male students and female student differ significantly in these two aspects. Based on the results and available literature, the study then discusses its implications.

Participants

Due to financial and administrative constraints, the subjects of this study were students from a single university. Among them, the third-year students of the Department of Foreign Languages best fitted the research design as they had enrolled in more online English courses than other students had. Of 65 candidates, 48 third-year students, 12 males (25%) and 36 females (75%), willingly participated in this

study. The participants were majoring in English language and received three online courses during the COVID-19 university shutdown, including Reading III, Phonology, and British Culture. After the university closure ended, the students answered a questionnaire in the classroom. Before the students answered, the researcher explained clearly each item, assured them that their responses would not affect their assessment of any other course, and would be confidentially used only for research purposes, and confirmed their consent once again.

Instruments

This study used a three-part questionnaire to collect quantitative data. The first part was designed to collect the personal information of the respondents. The second part consisted of twenty items to measure students' online self-regulated English learning (OSEL). The third part consisted of 28 items to evaluate the participants' English language self-efficacy (ELSE). The statements of Part Two were first developed by Zheng et al. (2016) and then modified by Su et al. (2018). The statements of Part Three were developed by Wang et al. (2014) and also modified by Su et al. (2018). To better suit the participants' living places, this study retained the original "Can you describe the way to the university from the place where you live in English" of Wang et al. (2014). Parts Two and Three are shown in the Appendix. Previous researchers divided the OSEL part into six sub-scales labelled goal setting, environment structuring, task strategies, time management, help seeking, and self-evaluation. They also classified the ELSE part into four groups named listening, speaking, reading, and writing. The author slightly modified the statements of Parts Two and Three to fit the Vietnamese context by changing the term Chinese to Vietnamese. This study employed a Likert-type scale with five response options, ranging from 1 (strongly disagree) to 5 (strongly agree) to score the items of Part Two. The same scale was for that of Part Three, evaluating from 1 (I cannot do it at all) to 5 (I can do it well). To avoid misunderstanding, the author translated Parts Two and Three into Vietnamese in advance before delivering the questionnaire to the participants.

Analyses

All the quantitative data were coded and processed first to get descriptive statistics. Cronbach's alpha test was then performed to examine the scale reliabilities. While principal component analysis (PCA) was run to reduce the items of Parts Two and Three, Pearson's product-moment correlation coefficient (PPMCC) tests were used to find out if there was any statistical relationship between every pair of the sub-scales, one of Part Two and one of Part Three. Finally, based on the PPMCC test results, a regression analysis was conducted for those valid sub-scales that had significant correlation. As previous work has demonstrated that the sub-scales of OSEL could well serve as predictors for those of ELSE (Su et al., 2018), this study inserted the valid sub-scale of online self-regulation as an independent variable and those of self-efficacy as a dependent one in its regression analysis.

Results and Discussion

PCA-used case

Table 1 shows the results of the principal component analysis for the OSEL part, including the outcomes of reliability analysis and descriptive statistics for each turning-out component.

Item	Factor loading			
	HS	GS	ES	SE
Help seeking: α = 0.833, *Mean* = 3.54, *SD* = 0.91				
HS1	0.873			
HS2	0.851			
HS3	0.825			
Goal setting: α = 0.667, *Mean* = 3.51, *SD* = 0.64				
GS1		0.807		
GS2		0.718		
GS3		0.687		
Environment structuring: α = 0.843, *Mean* = 3.72, *SD* = 0.84				
ES1			0.924	
ES2			0.879	
Self-evaluation: α = 0.749, *Mean* = 3.29, *SD* = 0.77				
SE1				0.907
SE2				0.836

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
Cronbach's alpha for whole scale: α = 0.776; cumulative variance explained: 76.333%.
HS = Help seeking, GS = Goal setting, ES = Environment structuring, SE = Self-evaluation.

Table 1: Factor loadings, Cronbach's alpha, Mean, and Standard deviation for the four sub-scales of the online self-regulated English learning (OSEL)

As shown in Table 1, all Cronbach's alpha analyses gave the OSEL part and its sub-scales, except the Goal setting, acceptable reliability, $\alpha > 0.7$. The α value of Goal setting component was low, 0.667, but not bad for a sub-scale (Taber, 2018). It is interesting to note that only ten items divided into four groups remained from the original twenty items in six sub-divisions used by Su et al., (2018). The excluded components were task strategies and time management. It appears that the type of online English courses in which the participants engaged during the university closure may have been an influence. Giesbers et al. (2013) claimed that the online synchronous learning process most closely resembles face-to-face classrooms. Since the courses in this study were synchronous and texts and exercises were delivered as attached-files, the students may have treated them as traditional courses. They "met" the teacher in real-time to receive the lecture, did the given exercises, and submitted them by e-mail later. This manner "looked like" what happens in a face-to-face-classroom. The only differences were that the learner saw the lecturers on an electronic screen and heard the voices from a speaker. Thus, the students may have downplayed the roles of task strategies and time management necessary to an online course, and their corresponding questionnaire responses do not contribute much to the total variance.

Table 2 presents the outcomes of principal component analysis for the ELSE part, including the results of reliability analysis and descriptive statistics for each turning-out component.

Item	**Factor loading**	
	Speaking & Writing	Listening
Help seeking: α = 0.924, *Mean* = 3.15, *SD* = 0.60		
Speaking 1	0.869	
Speaking 2	0.839	
Speaking 3	0.827	
Speaking 4	0.827	
Speaking 5	0.755	
Speaking 6	0.676	
Writing 1	0.772	
Writing 2	0.768	
Self-evaluation: α = 0.890, *Mean* = 2.74, *SD* = 0.65		
Listening 1		0.945
Listening 2		0.917

Note: Extraction Method: Principal Component Analysis.
Cronbach's alpha for whole scale: α = 0.913; cumulative variance explained: 71.570%.
Rotation Method: Varimax with Kaiser Normalization.

Table 2: Factor loadings, Cronbach's alpha, Mean, and Standard deviation for the two sub-scales of the English learning self-efficacy (ELSE)

As seen in Table 2, the ELSE part and its two sub-scales show high reliability, α = 0.913, 0.924, and 0.890, respectively. Out of the original 28 items delivered in four groups, only ten remained and divided into two components. Furthermore, the original speaking and writing groups emerged and formed a new sub-scale. It seems that the items for the reading factor had comparatively small variance and were excluded by the PCA process.

Correlation analysis

Pearson's product-moment correlation analysis resulted in all the p-values being greater than 0.05. That means no statistically significant relationship existed between the components of the OSEL and that of the ELSE. Thus, there was no sub-scale of the EFL students' online self-regulation that could serve as a predictor for their self-efficacy in this case. The mean-computed variable of ten items of OSEL resulted from PCA also did not have a significant correlation with a similar variable of PCA-induced ten ones of ELSE with a p-value of 0.754. Zimmerman (2000) claimed that the link between self-regulation and self-efficacy includes forethought, performance control, and self-reflection. Thus, the correlation analysis results may indicate that the participants of this study lack, to some extent, these three phases in their online English courses mentioned above.

PCA-unused case

In this case, students' responses proceeded directly to descriptive statistics, reliability analysis, Pearson's correlation analysis, and stepwise regression analysis without principal component analysis. Reliability statistics performance for the twenty item scale of the OSEL and the 28 item scale of the ELSE resulted in high Cronbach's alpha coefficients, α = 0.847 and 0.963, respectively. The sum results of descriptive statistics, reliability analysis, Pearson's correlation analysis are presented in Table 3 and those of stepwise regression analysis in Table 4 below.

	GS α = 0.752 *Mean* = 3.49 *SD* = 0.54	ES α = 0.589 *Mean* = 3.60 *SD* = 0.62	TM α = 0.660 *Mean* = 3.42 *SD* = 0.60	HS α = 0.833 *Mean* = 3.53 *SD* = 0.91	SE α = 0.637 *Mean* = 3.31 *SD* = 0.63
Listening α = 0.859 *Mean* = 2.91 *SD* = 0.52	-[a]	0.311*	0.401**	-[a]	-[a]
Speaking α = 0.944 *Mean* = 3.16 *SD* = 0.61	-[a]	-[a]	-[a]	-[a]	-[a]
Reading α = 0.859 *Mean* = 2.70 *SD* = 0.61	0.287*	-[a]	0.362*	-[a]	-[a]
Writing α = 0.879 *Mean* = 2.82 *SD* = 0.54	-[a]	-[a]	0.319*	-[a]	-[a]

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).
[a]. *p*-value > 0.05

Table 3: Correlations between the sub-scales of OSEL and ELSE without running PCA

The task strategies sub-scale is not in Table 3 since it did not pass the reliability test with very poor Cronbach's alpha, α = 0.11. As shown in Table 3, significant relationships existed in five pairs. Time management held a positive correlation with listening, reading, and writing with Pearson coefficient **r** of 0.401, 0.362, and 0.309, respectively. Meanwhile, goal setting correlated positively with reading, r = 0.282, environment structuring with listening, r = 0.311. Despite the relationships of these five pairs, the whole twenty items of OSEL had no statistically significant correlation with the entire 28 items of ELSE as p = 0.82.

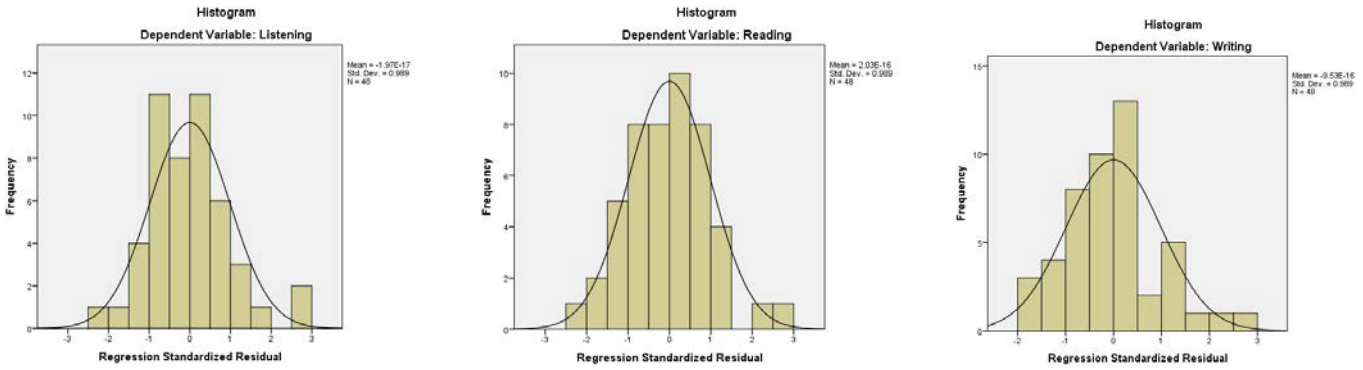
		B	β	Adjusted R square	*p*-value	VIF
Listening[a]	Constant	1.738			0.000	
	Time management	0.344	0.401	0.143	0.005	1.000
Reading[a]	Constant	1.450			0.004	
	Time management	0.365	0.319	0.112	0.011	1.000
Writing[a]	Constant	1.979			0.000	
	Time management	0.281	0.362	0.082	0.027	1.000

[a]. Dependent variable

Table 4: Stepwise regression using sub-scales of OSEL as predictors

As presented in Table 4, the stepwise regression analysis revealed that only time management was useful for predicting some dimensions of self-efficacy. This sub-scale of the EFL students' online self-regulated responses is capable in the prediction of three sub-scales of self-efficacy including listening (constant = 1.738, β = 0.401), reading (constant = 1.450, β = 0.365), and writing (constant = 1.979, β = 0.281). As shown in Figure 1, all standardized residual histograms of the regression of these three dependent variables nearly fitted a standard distribution and Std. Dev. ≈ 1. The finding indicates that, among six factors of online self-regulation, the participants evaluated time management as the most important in their English learning self-efficacy. This finding contradicts the results of Su et al. (2018), which showed that time management had no role in predicting EFL learners' self-efficacy. The reason may be due to the different modes of online English education that the participants received. In Su et al.'s (2018) study, the students took an English course blended between face-to-face and online asynchronous modes and were required to submit various self-regulation reports **via** two online learning systems. In this research, as mentioned in the section of *PCA-used case* above, the participants experienced online English courses in the synchronous mode in which communication is very much the same as a face-to-face learning process (Giesbers et al., 2013). Nevertheless, in both synchronous and asynchronous modes, there is a consensus that Web-based learning requires learners to have a high level of autonomy (Artino, 2008). Learners with insufficient motivation and self-regulated learning abilities may face difficulty. On the other hand, Thompson (2009) noted that since "for centuries Vietnamese education has been rooted in the Confucian tradition, similar to a number of other East Asia and Southeast Asian societies" the "duty of the students" was "to be passive, obedient and to learn by heart the information provided by the teacher" (p. 23). He also found that the teaching methods did not encourage students to develop "analytical skills and creative thinking" (Thompson, 2009, p. 13). Being accustomed to a teacher-dependent learning mode for a long time in their lower education, the

students in the present study appear to pay little attention to goal setting, help seeking, environment structuring, task strategies, and self-evaluation. The participants may naturally feel that the more time they spend on learning English, the more proficient they will be. That must be why the time management factor can serve as a predictor for self-efficacy.



a) b) c)

Figure 1: Standardized residual histogram of a) Listening, b) Reading, and c) Writing

Difference in gender towards time management

Paragan and Buslon (2020) discovered that Filipino female students had higher English language proficiency than their male counterparts. Female learners' motivation was also higher than that of males in learning English (Aldosari, 2014; Al-Mubireek, 2020). Furthermore, Ghazvini and Khajehpour (2011) stated that Iranian female students possessed higher levels of integrative motivation and positive attitude towards learning English than male students. Since the present subjects were also Asian, it seemed well worth a similar trial in this study. One-way ANOVA analysis revealed that the *p*-value for Levene statistics was good, $p = 0.102$, but that of ANOVA was unacceptable with $p = 0.718$. Thus, there was no statistically significant difference between females and males towards time management. Analyses for OSEL, ELSE and their other sub-scales resulted in similar results.

Implications

In the PCA-used case, the analysis retained only four of six dimensions of OSEL, and two of four dimensions of ELSE. There was no significant correlation in two whole scales and all sub-scales. In PCA-unused case, close relationships existed only in five pairs of sub-scales, and the two entire OSEL and ELSE were unlinked. These combined results imply that the participants in this study might not prepare their self-regulated learning for the online English courses during the COVID-19 university shutdown. Previous research has demonstrated a positive correlation between self-regulation and academic self-efficacy (Pajares, 2008; Zimmerman & Schunk, 2008). Assuming that online self-regulation could take the place of self-regulation, there is no such relationship here. In four influences on one's self-efficacy theorized by Bandura (1977, 1986, 1997), the respondents probably exploited only two, mastery experiences and vicarious experiences. That means they might employ their successful experiences of self-regulated learning of previous face-to-face courses (mastery experiences) and watch other students' success in their performance (vicarious experiences). To some extent, the other two of Bandura's theorized influences of social persuasion and emotional states seem to work on a negative impact because their teachers and parents probably lacked knowledge and experience in on-line courses to give them helpful instruction and encouragement. Zumbrunn et al. (2011) pointed out that in traditional classroom environments the students must be taught several processes, including goal setting, planning, and self-evaluation, to obtain better self-regulated learning. Thus, in a more complicated environment of online learning, how could the lecturers teach their students to become effective self-regulators of their online learning when the lecturers themselves had little time to prepare for such incidental online courses due to the pandemic? On the other hand, with little or no course orientation, it is understandable that negative moods might lower the students' self-efficacy beliefs. As defined by Bandura (1977, 1986, 1997), self-efficacy is the belief of an individual that he or she can perform in effective ways to obtain target outcomes. The absence of an intricate relationship between online self-regulation and self-efficacy in this study may also imply that the students will probably get poor learning outcomes for the mentioned courses. Finally, the fact that the time management sub-scale could play a predictive role indicates that the participants paid much attention to this dimension. Thus, this finding may imply that a blended type of synchronous and asynchronous online courses to improve the students'

engagement and learning outcome is well worth consideration for future online courses under similar circumstances.

Limitations

The present study has three limitations. First, it used a modified questionnaire taken from previous work on a different online English learning mode. Thus, the items of time management might have confused the participants. The author tried to prevent confusion by clearly explaining every single statement when the students answered the questionnaire. Second, the participants were not from a variety of majors, and levels of the academic year. As a result, any extrapolation of the findings of this research must be done with care. Finally, although this study did perform one-way ANOVA analysis to examine if there is any gender difference towards time management and other dimensions, the number of male students was relatively small, compared to that of their female counterparts, which made the sample size statistically unequal and might have affect the reliability of the results. Future work would be useful to investigate students' online English learning environments considering these limitations.

Conclusion

This quantitative study investigates university students' online self-regulated English learning and self-efficacy. Basing on the results obtained by statistical analyses of the participants' questionnaire responses, the study concludes that there was a close relationship between these two constructs. Furthermore, learners' English learning self-regulation could serve as a predictor for self-efficacy. Although the current research has some limitations, its findings may be useful for future online course design to meet the growing demand for diversifying education. Flexibility in the teaching and learning process will help both the teachers and the students to overcome any challenges in an uncertain world. The findings of this study also indicated that training for the teachers and orientation for the students would be indispensable for an online course to be successful.

References

Aldosari, H. S. (2014). The entwined effects of attitude, motivation and gender on EFL learning: A correlation study. *Studies in Literature and Language, 8*(1), 1-5. http://www.cscanada.net/index.php/sll/article/view/j.sll.1923156320140801.4183/5578

Al-Mubireek, S. (2020). An Attitude/Motivation Test Battery (AMTB) of English language learning among students across genders, tracks and proficiency levels at a leading Saudi university. *The Asian EFL Journal, 24*(4), 26-50.

Anam, S., & Stracke, E. (2016). Language learning strategies of Indonesian primary school students: In relation to self-efficacy beliefs. *System, 60*, 1-10. http://dx.doi.org/10.1016/j.system.2016.05.001

Artino, A. R. (2008). Motivational beliefs and perceptions of instructional quality: Predicting satisfaction with online training. *Journal of Computer Assisted Learning, 24*(3), 260-270. http://dx.doi.org/10.1111/j.1365-2729.2007.00258.x

Bai, R., Hu, G., & Gu, P. Y. (2014). The relationship between use of writing strategies and English proficiency in Singapore primary schools. *The Asia-Pacific Education Researcher, 23*(3), 355-365. http://dx.doi.org/10.1007/s40299-013-0110-0

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. https://psycnet.apa.org/doi/10.1037/0033-295X.84.2.191

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control* Freeman.

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology, 41*(3), 586-598. http://dx.doi.org/10.1037/0022-3514.41.3.586

Barnard, L., Lan, W. Y., To, Y. M., Paton, V. O., & Lai, S.-L. (2009). Measuring self-regulation in online and blended learning environments. *The Internet & Higher Education, 12*(1), 1-6. http://dx.doi.org/10.1016/j.iheduc.2008.10.005

Bruning, R. H., Schraw, G. J., Norby, M. M., & Ronning, R. R. (2004). *Cognitive psychology and instruction*. Pearson Prentice Hall.

Chang, M.-M. (2005). Applying self-regulated learning strategies in a web-based instruction–An investigation of motivation perception. *Computer Assisted Language Learning, 18*(3). http://dx.doi.org/10.1080/09588220500178939

Chang, M.-M., & Wu, Y. M. (2003). EFL learners' self-efficacy and strategies use in a web-based learning environment. *Proceedings of the 2003 International Conference on English Teaching and Learning in the Republic of China, Taiwan*, *ROC*, (117-125). Province University.

Chen, M. C., & Lin, H. J. (2009). Self-efficacy, foreign language anxiety as predictors of academic performance among professional program students in a general English proficiency writing test. *Perceptual & Motor Skills, 109*(2), 420–430. http://dx.doi.org/10.2466/PMS.109.2.420-430

Cho, M.-H., & Shen, D. (2013). Self-regulation in online learning. *Distance Education, 34*(3), 290-301. http://dx.doi.org/10.1080/01587919.2013.835770

Dabbagh. N., & Bannan-Ritland, B. (2005). *Online learning: Concepts, strategies and application* Pearson.

Ertmer, P. A., Newby, T. J., & MacDougall, M. (1996). Students' approaches to learning from case-based instruction: The role of reflective self-regulation. *American Educational Research Journal*, *33*(3), 719-752. https://doi.org/10.2307/1163282

Gerlich, R. N. (2005). Faculty perception of distance learning. *Distance Education Report, 9(17)*, 8.

Ghazvini, S. D., & Khajehpour, M. (2011). Attitudes and motivation in learning English as second language in high school students. *Procedia Social and Behavioral Sciences, 15*, 1209-1213. https://doi.org/10.1016/j.sbspro.2011.03.264

Giesbers, B., Rienties, B., Tempelaar, D., Gijselaers, W. (2013). A dynamic analysis of the interplay between asynchronous and synchronous communication in online learning: The impact of motivation. Journal of Computer Assisted Learning *30*(1): 30-50. https://doi.org/10.1111/jcal.12020

Herrington, J., Reeves, T. C., & Oliver, R. (2005). Online learning as information delivery: Digital myopia. *Journal of Interactive Learning Research, 16*(4), 353-367.

Hilden, K. R., Pressley, M. (2007). Self-regulated through transactional strategies instruction. *Reading and Writing Quarterly*, *23*(1), 51-75. https://doi.org/10.1080/10573560600837651

Hofer, B. K., Yu, S. L., & Pintrich, P. R. (1998). Teaching college students to be self-regulated learners. In D. H. Schunk, & B. J. Zimmerman (Eds.), *Self-regulation of learning and performance: Issues and educational applications* (pp. 57-85). Erlbaum.

Kissau, S. (2012). Perceptions of self-efficacy for two types of second language methods instruction. *Computer Assisted Language Learning, 25*(4), 295-317. http://dx.doi.org/10.1080/09588221.2011.587436
Kormos, J., & Csizér, K. (2014). The interaction of motivation, self-regulatory strategies, and autonomous learning behavior in different learner groups. *TESOL Quarterly, 48*(2), 275-299. http://dx.doi.org/10.1002/tesq.129
Linh, H. (2020, March 3). Online education remains unfamiliar in Vietnam. *Vietnamnet*. https://Vietnamnet.vn/en/society/online-education-remains-unfamiliar-in-Vietnam-620964.html
Linh, P. D. & Trang, T. N. (2020) Pandemic, social distancing, and social work education: students' satisfaction with online education in Vietnam. *Social Work Education*, *39*(8), 1074-1083. https://doi.org/10.1080/02615479.2020.1823365
Mortera-Gutiérrez, F. (2006). Faculty best practices using blended learning in e-learning and face-to-face instruction. *International Journal on E-Learning, 5*(3)*,* 313-337. https://www.learntechlib.org/primary/p/6079
Pajares, F. (2006). Self-efficacy during childhood and adolescence: Implications for teachers and parents. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 339-367). Information Age.
Pajares, F. (2008). Motivational role of self-efficacy beliefs in self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and applications* (p. 111-139). Lawrence Erlbaum.
Paragan, B. P. P. & Buslon, J. B.. (2020). The construct of gender and ethnicity in language proficiency of post-colonial Filipino ESL learners. *TESOL International Journal, 15*(1), 86-92.
Pilla, B. S., Nakayama, M. K., & Nicholson, P. (2006). Characterizing e-learning practices. *In Proceedings of WCC2002*, Santiago, Chile, July 2006. Springer. http://sedici.unlp.edu.ar/handle/10915/24283
Pham, H.-H., & Ho, T. H. T.. (2020). Toward a 'new normal' with e-learning in Vietnamese Note: higher education during the post COVID-19 pandemic. *Higher Education Research & Development, 39*(7), 1327-1331. https://doi.org/10.1080/07294360.2020.1823945
Schunk, D. H. (1989). Social cognitive theory and self-regulated learning. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: theory, research, and practice* (pp. 83-110). Springer-Verlag.
Schunk, D. H. (1990). Goal-setting and self-efficacy during self-regulated learning. *Educational Psychologist, 25*(1), 71–86. http://dx.doi.org/10.1207/s15326985ep2501_6
Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading & Writing Quarterly, 23*(1), 7-25. https://doi.org/10.1080/10573560600837578
Su, Y., Zheng, C., Liang, J.-C., & Tsai, C.-C. (2018). Examining the relationship between English language learners' online self-regulation and their self-efficacy. *Australasian Journal of Educational Technology*, *34*(3), 105-121. https://doi.org/10.14742/ajet.3548
Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273-1296. https://doi.org/10.1007/s11165-016-9602-2
Thompson, J. (2009). Changing chalk and talk: The reform of teaching methods in Vietnamese higher education. *Independent Study Project (ISP) Collection*, 708. https://digitalcollections.sit.edu/isp_collection/708
Tran, T., Hoang, A.-D., Nguyen, T. T., Dinh, V.-H., Nguyen, Y.-C., & Pham, H.-H. (2020). Dataset of Vietnamese student's learning habits during COVID-19. *Data in Brief*, *30*, https://doi.org/10.1016/j.dib.2020.105682
Tseng, S.-C., Liang, J.-C., & Tsai, C.-C. (2014). Students' self-regulated learning, online information evaluative standards and online academic searching strategies. *Australasian Journal of Educational Technology, 30*(1), 106-121. http://dx.doi.org/10.14742/ajet.242
United Nations Educational. Scientific, and Cultural Organization. (2020). *COVID-19 educational disruption and response*. https://en.unesco.org/news/covid-19-educational-disruption-and-response
Urdan, T. A., & Weggen, C. C. (2000). *Corporate e-learning: Exploring a new frontier*. WR Hambrecht.
Ushioda, E. (2006). Motivation, autonomy and sociocultural theory. In P. Benson (Ed.), *Learner autonomy 8: Insider perspectives on autonomy in language learning and teaching* (pp. 5-24). Authentik.
Vu, C.-T., Hoang A.-D., Than, V.-Q., Nguyen, M.-T., Dinh, V.-H., Le, Q.-A. T., Le, T.-T. T., Pham, H.-H., & Nguyen, Y.-C. (2020). Dataset of Vietnamese teachers' perspectives and perceived support during the COVID-19 pandemic. *Data in Brief*, *31*. https://doi.org/10.1016/j.dib.2020.10578
Wang, C., Kim, D.-H., Bai, R., & Hu, J. (2014). Psychometric properties of a self-efficacy scale for English language learners in China. *System, 44*(1), 24–33. http://dx.doi.org/10.1016/j.system.2014.01.015
Wegmann, S., & McCauley, J. (2008). Shouting through the fingertips: Computer-mediated discourse in an asynchronous environment. In K. McFerrin et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2008* (pp. 805-808). AACE.
Winters, F. I., Greene, J. A., & Costich, C. M. (2008). Self-regulation of learning within computer-based learning environments: A critical analysis. *Educational Psychology Review, 20*(4), 429-444. http://dx.doi.org/10.1007/s10648-008-9080-9
Woodrow, L. (2011). College English writing affect: Self-efficacy and anxiety. *System, 39*(4), 510–522. http://dx.doi.org/10.1016/j.system.2011.10.017
Wu, E., & Yang, S. C. (2016). Examining the impact of online labeling on tutoring behavior and its effect on the English learning and motivation of low-achieving university students. *Computer Assisted Language Learning, 29*(2), 316-333. https://doi.org/10.1080/09588221.2014.941370
Zheng, C., Liang, J.-C., Yang, Y.-F., & Tsai, C.-C. (2016). The relationship between Chinese university students' conceptions of language learning and their online self-regulation. *System, 57*, 66-78. http://dx.doi.org/10.1016/j.system.2016.01.005
Zimmerman, B. J. (1990). Self-regulated academic learning and achievement: The emergence of a social cognitive perspective. *Educational Psychology Review*, *2*(*2*), 173-201. https://doi.org/10.1007/BF01322178
Zimmerman, B. J., (2000). Attaining self-regulation: A social-cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner, *Handbook of self-regulation*, (pp. 13-39). Academic Press.
Zimmerman, B. J., & Risemberg, R (1997). Self-regulatory dimensions of academic learning and motivation. In G. D. Phye (Ed *), Handbook of academic learning: Construction of knowledge* (pp. 105-125). Academic Press.
Zimmerman, B. J., & Schunk, D. H. (2008). Motivation: An essential dimension of self-regulated learning. In D. H. Schunk & B. J. Zimmerman (*Eds), Motivation and self-regulated learning: Theory, research, and applications* (p. 1-30). Lawrence Erlbaum.
Zumbrunn, S., Tadlock, J., & Roberts, D. E. (2011). *Encouraging self-regulated learning in the classroom: A review of the literature*. Virginia Commonwealth University. https://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1017&context=merc_pubs

Appendix

Questionnaire part on online self-regulated English learning (Zheng et al., 2016; Su et al., 2018)

Factor	Item	Question
Goal setting	GS1	I don't compromise the quality of my work in the English course just because it is online.
	GS 2	I set goals to help me manage study time for my online English learning.
	GS 3	I keep a high standard for my learning in my online English course.
	GS 4	I set standards for my assignments when learning English online.
	GS 5	I set short-term (daily or weekly) goals as well as long-term (monthly or for the semester) goals when learning the English course online.
Environment structuring	ES 1	I choose a good location for learning English online to avoid too much distraction.
	ES 2	I find an appropriate place for me to concentrate on my online learning of English.
	ES 3	I know where I can learn English online most efficiently.
	ES 4	I choose a time with few distractions when studying English online.
Task strategies	TS 1	I try to take more thorough notes for my online courses because notes are even more important for learning English online than in a regular classroom.
	TS 2	I read aloud the English instructional materials posted online to fight against distractions.
Time management	TM 1	I make use of my fragmental time to learn English online.
	TM 2	I try to schedule the same time every day to learn English online, and I observe the schedule.
	TM 3	Although we don't have to attend daily online English classes, I still try to distribute my studying time evenly across days.
Help seeking	HS 1	I share my problems with my classmates online so we know what we are struggling with and how to solve our problems.
	HS 2	If needed, I try to meet my classmates face-to-face and discuss problems when learning English online.
	HS 3	I find someone who is knowledgeable in online English language learning so that I can consult with him or her when I need help.
Self-evaluation	SE 1	I communicate with my teachers to find out how I am doing with my online English learning.
	SE 2	I summarise my online English learning to examine my understanding of what I have learned.
	SE 3	I ask myself a lot of questions about the course material when studying for an online course.

Questionnaire part on English language self-efficacy (Wang et al., 2014; Su et al., 2018)

Factor	Item	Question
Listening self-efficacy	Listening 1	Can you understand radio programs in English speaking countries (like VOA Special)?
	Listening 2	Can you understand American English TV programs?
	Listening 3	Can you understand English radio programs made in Vietnam (like Vietnam Radio International)?
	Listening 4	Can you understand English lectures of general topics?
	Listening 5	Can you understand English songs?
	Listening 6	Can you understand stories told in English?
	Listening 7	Can you understand English TV programs made in Vietnam?
	Listening 8	Can you understand English movies without Vietnamese subtitles?
Speaking self-efficacy	Speaking 1	Can you introduce your instructors to someone else in English?
	Speaking 2	Can you ask people for help in English?
	Speaking 3	Can you introduce yourself in English?
	Speaking 4	Can you do English presentations in class?
	Speaking 5	Can you ask your English instructor questions in English?
	Speaking 6	Can you describe the way to the Yersin University from the place where you live in English?
	Speaking 7	Can you describe the Yersin University to other people in English?
	Speaking 8	Can you discuss subjects of general interest with your fellow students in English?
	Speaking 9	Can you tell a story in English?
	Speaking 10	Can you answer your English instructor's questions in English?
Reading self-efficacy	Reading 1	Can you understand the English news on the Internet?
	Reading 2	Can you read short English narratives?
	Reading 3	Can you read English newspapers?
	Reading 4	Can you understand English articles about Vietnamese culture?
Writing self-efficacy	Writing 1	Can you leave a note for another student in English?
	Writing 2	Can you write English compositions assigned by your English instructor?
	Writing 3	Can you write email messages in English?
	Writing 4	Can you write coherent English sentences?
	Writing 5	Can you punctuate correctly when you write English essays?
	Writing 6	Can you use accurate grammar when you write English essays?