

Online Self-Regulated Learning Strategies in the Process of Writing Undergraduate Thesis: A Survey Study

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Abstract

This survey study aims to identify EFL undergraduate students' online self-regulated learning strategies in the process of writing their undergraduate theses during COVID-19 pandemic. 97 senior students agreed to participate in this study. This study used a 24-item questionnaire adapted from [Barnard et al. \(2009\)](#) Online Self-Regulated Learning Questionnaire (OSLQ). The results revealed that the participants' online self-regulated learning strategies in the process of writing their undergraduate theses from the highest to lowest mean score were: environment structuring, help-seeking, self-evaluation, goal setting, time management, and task strategies. Environment structuring had the highest average score, indicating that undergraduate English Education students were able to choose and arrange places for online learning to minimize distractions so that their learning could run optimally. However, the ability of self-regulated learning strategies in the task strategy domain had the lowest average score. The results displays that in the process of writing undergraduate theses, participants' ability in task strategies needed to be improved. For further research, the researchers recommend further investigation on the relationship between undergraduate students' motivation and ability in implementing their self-regulated online learning strategies in writing undergraduate thesis. Future research should also include metacognitive learning strategies and re-examine the relationship of undergraduate students' online self-regulated learning strategies to their online learning performance in writing undergraduate theses.

Keywords: *EFL writing, higher education, online learning, self-regulated learning strategies, undergraduate thesis*

INTRODUCTION

Online learning during the COVID-19 pandemic creates new learning problems for students in higher education. According to [Nugroho et al. \(2020\)](#), there are new problems experienced by college students during the COVID-19 pandemic including insufficient internet quota, unstable internet connection, having trouble in understanding learning material, and insufficient learning materials. Thesis writing is a cognitive thinking process carried out by students as a determinant for obtaining a bachelor's degree in higher education context ([Mahfudhoh, 2019](#)). Academic achievement is highly associated with publications in academia ([Nicholls, 2005](#)) and undergraduate thesis writing is the gate to attaining a bachelor's degree. According to [Mahfudhoh \(2019\)](#), thesis writing is also defined as a type of writing that is metacognitive and requires a high level of responsibility in problem-solving and decision-making, and students are required to have a high level of skill and toughness in the writing process. Some problems, such as difficulties in responding to the lecturer's feedback ([Sandria, 2021](#)), making time to revise the drafts ([Nurkamto et al., 2022](#); [Pravita & Kuswandono, 2022](#)), adapting from offline thesis supervision to online thesis supervision ([Prihandoko et al., 2022](#)), getting access and permission to collect data at schools ([Dewi, 2022](#)), are identified in the process of writing a thesis during online learning at the time of COVID-19 pandemic. To deal with the problems in the process of writing undergraduate thesis, students need to practice self-regulated learning strategies to survive in emergency teaching. Research that discusses self-regulated learning strategies in thesis writing is very important. According to [Hallberg and Olsson et al. \(2017\)](#), self-regulated learning strategies in thesis writing need to be done because there are many students who take thesis writing courses but do not finish them by the appointed time.

Self-Regulated Learning (SRL) is the process when students create and implement learning strategies in accordance with their interests and goal setting while regulating and controlling their cognition, behavior, and motivation ([Barnard-Brak et al., 2010a](#)). Self-regulated learning strategies have six domains: goal setting, time management, task strategy, environment structuring, help-seeking, and self-evaluation ([Barnard et al., 2009](#)). Research that examines Self-Regulated Learning (SRL) has been conducted since the mid-1980s to understand how students control their learning process. One of the researchers who consistently studied SRL is [Zimmerman \(1998\)](#), who described the SRL process in terms of goal setting, task strategies, imagery, self-instruction, time management, self-monitoring, self-evaluation, self-consequences, environmental structuring, and help-seeking. According to [Zimmerman \(1998\)](#), what is clear from these naturalistic accounts of learning and performance is that self-regulation techniques are more than just ways to acquire and apply knowledge in formal learning settings. [Zimmerman \(1998\)](#) elaborated that once mastered, they are also used throughout life to act effectively in informal contexts, such as at home.

According to [Barnard-Brak et al. \(2010a\)](#), self-regulated learning is based on the assumption that in the learning process, individuals can act as causal agents in their own lives. Self-regulated learning is also known as self-centered learning, or agents acting on their environment. An agent is a person's expertise in acting and making decisions that affect his life ([Martin, 2004](#)). From these agentic perspectives, self-regulated learning is seen from a variety of theoretical frameworks that support a self-determinist perspective. Meanwhile, from a social cognitive standpoint, the development of self-regulated learning skills and strategies is a function of the two-way interaction which take the form of reciprocal causes ([Barnard-Brak et al., 2010a](#)). The two-way interaction process is influenced by personal, behavioral, and environmental factors that adapt, modify, and change as they interact with one another ([Barnard-Brak et al., 2010a](#)). Students can acquire the abilities and skills of planning and selecting appropriate cognitive and metacognitive strategies if they choose and use self-regulated strategies.

[Ally \(2004\)](#) argued that students enrolling in online learning environment have different learning experiences fundamentally from those who experience face-to-face learning because of decreased interaction with their peers and instructors. As a consequence, these students must be more proactive and autonomous in their learning process. Meanwhile, [Ivanič \(2004\)](#) argued that students' writing in universities should be understood as text, cognitive process, event, and part of sociocultural or political context when framing writing development in the universities.

Several researchers have studied self-regulated learning strategies in online learning. [Barnard-Brak et al. \(2010a\)](#) conducted a study on self-regulated learning in an online learning environment. The result revealed five different self-regulated learners' profiles: super self-regulators, competent self-regulators, forethought-endorsing self-regulators, performance/reflection self-regulators, and non- or minimal self-regulators. The study also indicated that in accordance with self-regulated learners' profiles, there were significant differences among individual learners in their academic achievement; for example, minimal self-regulators are both associated with similar, poorer academic outcomes (e.g., lower GPAs). Published in the same year, [Barnard-Bark et al. \(2010b\)](#) also conducted a study to determine whether the online self-regulatory skills of learners changed over time as associated with being immersed in their first online learning environment. They found that learners' online self-regulatory skills were not different significantly across time. In other words, students do not develop self-regulation automatically with their online learning experiences. They suggested that developing students' self-regulatory skills should be considered in designing online courses. [Kirmizi \(2014\)](#) compared 237 students' self-regulated learning skills employed by regular, distance, and evening English Language and Literature (ELL) students at Karabuk University. The study investigated self-regulated learning strategies, such as goal setting, environment structuring, time management, help-seeking, self-evaluation, and metacognition by adapting two instruments to collect data: Online Self-Regulated Learning Scale (OSLQ) and Motivated Strategies for Learning Questionnaire (MSLQ). The results indicated that the three groups have relatively high levels of self-regulated learning strategies, but evening students have the highest level of self-regulation, and successful students employ more self-evaluation and metacognition strategies compared to other groups. [Seker \(2015\)](#) examined the use of self-regulated learning by foreign language learners and its role in language attainment. The results of this study reveal that SRL is the most important factor in the prediction of language attainment and may need to take special consideration of SRL and its role in language attainment. Another researcher who researched self-regulated learning was [Chien \(2016\)](#) who examined the self-regulated learning of Taiwanese EFL scholars with and without technology. [Chien \(2016\)](#) concluded the following two main findings. The first was participants' instructional strategies for self-regulated learning followed the 3Ps, presentation, practice, and production. Second, participants perceived learning strategies without technology to be more effective, compared to those applied with online resources and applications.

In Indonesian context, [Lidiawati and Helsa \(2021\)](#) examined how online self-regulated learning strategies impact student learning engagement. The results of this study show that self-regulated learning has a significant role in student engagement. Students who have SRL tend to be actively involved in the learning process such as showing initiative, optimistic, monitoring learning outcomes, doing evaluation, and enduring through challenges to complete assignments, and being able to successfully achieve learning goals. Finally, during the COVID-19 pandemic, [Redjeki and Hapsari \(2022\)](#) identified online self-regulated learning strategies of first-year English as a foreign language (EFL) undergraduate students. This study included 81 EFL undergraduate students from batch 2020 majoring in English

Language Education at an Indonesian private university who enrolled at the university when it adopted online learning as the learning mode due to COVID-19 pandemic. The results reveal that the participants had the highest self-regulated learning strategies in the domain of environment structuring, specifically in arranging and determining the best place to learn English. They had, however, lower self-regulated learning strategies in task strategies and time management domains, particularly when it comes to preparing questions when learning English.

For university students, online learning during the COVID-19 pandemic poses unique challenges. To withstand emergency learning, they must put up a self-regulated learning approach. Individuals who are self-regulated in their learning appear to attain more favorable academic results than individuals who are not self-regulated in their learning, according to [Barnard-Brak et al. \(2010a\)](#). However, some English language education majors complained about common issues, such as arranging schedules for online learning and lacking motivation to learn the references and resources for their undergraduate thesis drafts. Based on previous research ([Barnard-Brak et al., \(2010a\)](#); [Barnard-Brak et al., \(2010b\)](#); [Seker \(2015\)](#); [Chien \(2016\)](#); [Lidiawati & Helsa \(2021\)](#); [Redjeki & Hapsari \(2022\)](#)), to the best of the authors' knowledge, there is no study which describes undergraduate students' online self-regulated learning strategies in the Indonesian context, particularly for those in the process of writing undergraduate theses during the COVID-19 pandemic. Therefore, to fill the research gap on self-regulated online learning strategies at the time of the COVID-19 pandemic, this research aims to discuss specifically undergraduate students' self-regulated online learning strategies in the process of writing an undergraduate thesis.

RESEARCH METHOD

This study was designed to examine self-regulated learning strategies in online learning for students majoring in English Language Education who were in the process of writing their undergraduate theses. This study used a quantitative research design by conducting a survey using Online Self-Regulated Learning Questionnaire (OSLQ) as an instrument adapted from [Barnard et al. \(2009\)](#). The reason researchers chose the instrument is because it has been tested valid by the previous research conducted by [Barnard-Brak et al. \(2010b\)](#). This study involved senior undergraduate students who were working on their undergraduate thesis as participants. Due to the online learning policy that was created to adhere to the safety protocols of COVID-19, the students experienced online platforms-mediated learning during their supervision in writing their undergraduate theses. The reason the researchers chose these participants as the target population was because the researchers were interested in capturing the profile of self-regulated learning strategies of the students who were in the process of writing their undergraduate theses.

The population in this study is 128 undergraduate students at the Department of English Language Education. In this study, purposive sampling was chosen. Based on the sample size calculation, there are 97 students (i.e., 33 males and 64 females) who agreed to participate in the online survey. All the selected participants should have enrolled and passed the Thesis Proposal Writing and Thesis Proposal Defense courses, and are continuing their undergraduate thesis drafts to undergraduate thesis supervision. All selected participants gave their consent to participate in the statement of approval in the online questionnaire instrument that was provided using Google Form. In the statement, they were informed that the participation in the study is voluntary and that the confidentiality of their answers are guaranteed. The researchers created the online questionnaire (Appendix 1) in Google Form and distributed the link via WhatsApp to the target participants.

The instrument used was Online Self-Regulated Learning Questionnaire (OSLQ)

questionnaire ([Barnard et al., 2009](#)). The OSLQ is a 24-item scale with a 5-point Likert-type response format which has values ranging from strongly agree (5) to strongly disagree (1). Higher levels of self-regulation in online learning are indicated by higher scores on this scale. The questionnaire was translated into Indonesian and the translation was validated by the second author who was the first author's undergraduate thesis supervisor. The instrument which consists of six domains is presented in Table 1.

Table 1. [Barnard et al., \(2009\)](#) Domains and Items of OSLQ:

Domains	Number of Items	Items Number
Goal Setting	5	1,2,3,4,5
Environment Structuring	4	6,7,8,9
Task Strategies	4	10,11,12,13
Time Management	3	14,15,16
Help-Seeking	4	17,18,19,20
Self-Evaluation	4	21,22,23,24

Each of these items refers to [Barnard et al \(2009\)](#)'s domain of OSLQ: goal setting (5 items), environment structuring (4 items), task strategies (4 items), time management (3 items), help-seeking (4 items), and self-evaluation (4 items). The questionnaire used the 5-scale Likert scale ranging from Strongly Agree to Strongly Disagree.

In terms of validity, this instrument had been tested valid by previous researchers ([Barnard-Bark et al., 2010a](#); [Barnard-Bark et al., 2010b](#); [Kirmizi, 2014](#)). In this study, the researchers adapted the instrument from the previous researchers and translated the instrument into Indonesian. To ensure the Indonesian translation's content validity, the first author asked the validation from the second author, who is the first author's undergraduate thesis supervisor. In terms of reliability, [Creswell \(2014\)](#) argues that reliability is closely related to the consistency of a measure. In this study, the researchers adapted the original instrument from [Barnard et al. \(2009\)](#) resulting in the reliability value for Cronbach Alpha in high consistency between items on this instrument, which was 0.93.

The data collection and analysis were done by implementing several steps: (1) reviewing the literature to understand the construct and content of the instrument; (2) adapting the questionnaire from [Barnard et al. \(2009\)](#) Online Self-Regulated Learning Questionnaire (OSLQ) as an instrument in this study using the 5-likert type scale; (3) translating the content of the instrument into Indonesian; (4) checking the content of the instrument that had been translated and asked for the thesis supervisor's approval; (5) distributing questionnaires to English Language Education students batch 2018 who were writing their undergraduate theses and collecting the responses via WhatsApp groups; (6) conducting validity and reliability tests using SPSS; (7) performing data analysis using Microsoft Excel; (8) presenting the data in diagram and tables.

RESULTS AND DISCUSSION

This survey study analyzed a group of EFL undergraduate students' self-regulated learning strategies during online learning who were in the process of writing their undergraduate theses at the time of COVID-19 pandemic. A total of 97 participants participated voluntarily

in the study and completed the survey. According to the data analysis, the average mean scores from the highest to the lowest were: the environment structuring domain ($M=4.21$, $SD=.913$), help-seeking domain ($M=3.85$, $SD=.959$), self-evaluation domain ($M=3.78$, $SD=.888$), goal-setting domain ($M=3.65$, $SD=.914$), time management domain ($M=3.60$, $SD=.931$), and task strategy domain ($M=3.43$, $SD=.981$).

The mean scores and standard deviation calculated based on the results of the participants' responses are presented in Figure 1.

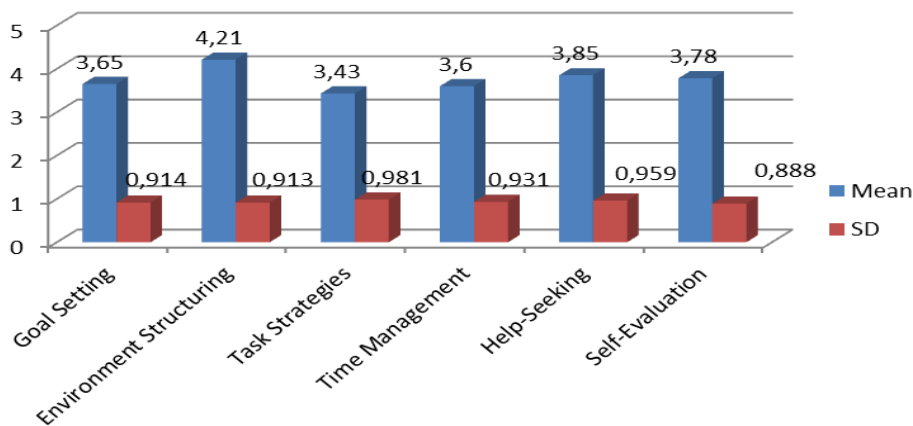


Figure 1. Self-Regulated Strategies on Online Learning

Even though this study adapted [Barnard et al. \(2009\)](#)'s instrument and examined how participants carry out self-regulated learning strategies during online learning, it is different from the study from [Barnard-Brak et al. \(2010a\)](#). This study is contextualized specifically to capture the participants' self-regulated online learning strategies in the process of writing the undergraduate thesis while [Barnard-Brak et al. \(2010a\)](#)'s research focuses more on the profile of self-regulated learning skills for students enrolled in online degree programs at large public universities located in the Southwestern United States.

High levels of online self-regulated learning strategies were revealed from the mean score of the sub-scales. The highest domain is the environment structuring domain ($M=4.21$, $SD=.913$). The undergraduate students' profile on environment structuring online self-regulated learning strategies is presented in Table 2.

Table 2. Environment Structuring Domain

Statements	N	Mean	Std. Deviation
I choose the location where I study to avoid too much distraction	97	4.37	.870
I find a comfortable place to study.	97	4.24	1
I know where I can study most efficiently for online courses.	97	4.19	.860
I choose a time with few distractions for studying for my online courses.	97	4.07	.923

The domain of environment structuring is the self-regulation strategy most participants chose to use in online learning. This is because during the pandemic, some of them returned

to their hometown where internet access was not as fast as the one they used to have in their boarding home. As [Lynch & Dembo \(2004\)](#) describes, students in distance learning study in a controlled and structured context in a classroom so that they need to be able to structure their own learning environment. Consequently, they needed to find a comfortable place with fast internet access for when they had feedback sessions synchronously via Zoom or asynchronously via Gmail. The results shows that students had a high self-regulated learning strategy in determining a supportive place during online learning to keep their progress in writing their theses.

Help-seeking is the second highest online self-regulated learning strategy chosen by the participants ($M=3.85$, $SD=.959$). The results are presented in Table 3.

Table 3. Help Seeking Domain

Statements	N	Mean	Std. Deviation
If needed, I try to meet my classmates face-to-face.	97	4.08	.970
I find someone who is knowledgeable in course content so that I can consult with him or her when I need help.	97	3.96	.969
I share my problems with my classmates online so we know what we are struggling with and how to solve our problems.	97	3.91	.991
I am persistent in getting help from the instructor through email.	97	3.46	.975

Choosing tutors, teachers, or other knowledgeable individuals, as well as selecting books for reference, is the act of help-seeking in the self-regulation learning strategies ([Zimmerman, 2011](#)). However, the sub-scales on [Barnard et al. \(2009\)](#)' instrument only focuses on peer or instructor's help and did not cover self-help attempts such as selecting written references as a help-seeking strategy. The data shows that the highest average value is in Q19 with $M=4.08$ and $SD=.970$ of which the statement says "*If needed, I try to meet my classmates face-to-face*". This result suggests that the participants perceived offline peer support as their priority for help-seeking strategy. This result aligns with the second author's observation that during undergraduate thesis supervision, students tend to respond to feedback faster and better if the written corrective feedback in their manuscript was supported by synchronous feedback sessions via Zoom. This was in line with the other result which shows that the lowest average result is in Q20 with $M=3.46$ and $SD=.975$ of which the statement is "*I am persistent in getting help from the instructor through email*". The mean score and standard deviation for all items in the help-seeking domain are $M=3.85$ and $SD=.959$. However, the result is different from [Mahfudhoh \(2019\)](#)'s study who found that most of the students chose help-seeking for self-regulated learning strategy as their priority when writing their undergraduate theses. The reason why help-seeking ranks second after environment structuring is because the study was conducted during the work and study from home policy, which caused most students to be away from their university. On the other hand, in [Mahfudoh \(2019\)](#)'s study, the undergraduate supervision feedback sessions were mostly in face-to-face offline session.

The third highest mean score belongs to the domain of self-evaluation ($M=3.78$, $SD=.888$). The participants' profile on self-evaluation as online self-regulated learning strategies in the process of writing their undergraduate theses is displayed in Table 4 below.

Table 4. Self-Evaluation Domain

Statements	N	Mean	Std. Deviation
I communicate with my classmates to find out what I am learning that is different from what they are learning.	97	3.92	.902
I ask myself a lot of questions about the course material when studying for an online course.	97	3.78	.878
I summarize my learning in online courses to examine my understanding of what I have learned.	97	3.73	.870
I communicate with my classmates to find out how I am doing in my online classes.	97	3.69	.902

In the distance learning self-evaluation, self-evaluation strategies became more important because students were away from their peers and instructors. According to the result, the highest average value is in Q24 with $M=3.92$ and $SD=.902$ with the statement "I communicate with my classmates to find out what I am learning that is different from what they are learning". The result represents how the participants in this study maintained communication with their peers in their process of writing their undergraduate theses despite the fact that they lived in different regions in Indonesia. Meanwhile, the lowest average result is in Q23 with $M=3.69$ and $SD=.902$ of which the statement is "I communicate with my classmates to find out how I am doing in my online classes". This result indicates that the participants chose peer evaluation on what they were learning rather than how they were doing in the online sessions when working on writing their undergraduate theses.

The fourth domain is goal setting ($M=3.65$, $SD=.914$). Student's profile of online self-regulated learning strategies for goal setting in the process of writing their undergraduate theses is shown in Table 5 below.

Table 5 . Goal Setting Domain

Statements	N	Mean	Std. Deviation
I set goals to help me manage studying time for my online courses.	97	3.83	.861
I keep a high standard for my learning in my online courses.	97	3.81	.845
I set standards for my assignments in online courses.	97	3.74	.923
I set short-term (daily or weekly) goals as well as long-term goals (monthly or for the semester).	97	3.55	.943
I don't compromise the quality of my work because it is online.	97	3.32	1

Based on data from the goal-setting domain survey results ($M=3.60$, $SD=.914$), the participants were aware of setting goals as demonstrated by the result that the highest

average value is in Q4 ($M=3.83$, $SD=.861$) "I set goals to help me manage studying time for my online courses". However, thesis supervisors should pay more attention to delivering quality feedback because the lowest mean score is in Q5 ($M=3.32$, $SD=1.068$) of which the statement says "I don't compromise the quality of my work because it is online". The result indicates that the students might be a bit reluctant to focus more on their self-regulation related to the quality of their undergraduate thesis manuscript. Thesis supervisors should put more attention to motivating them to write high-quality undergraduate thesis manuscripts that might result in the publication of the work in reputable academic journals. As [Anderson, Ronning, De Vries & Martinson \(2007\)](#) highlighted, the number of publications and citations are intertwined with scholarship prestige, public funding, and university rankings.

The fifth domain is related to time management ($M=3.60$, $SD=.931$). Students' online self-regulated learning strategies' preferences for time management in the process of writing undergraduate thesis are shown in Table 6 below.

Table 6. Time Management Domain

Statements	N	Mean	Std. Deviation
I try to schedule the same time every day or every week to study for my online courses, and I observe the schedule.	97	3.64	.911
I allocate extra studying time for my online courses because I know it is time-demanding.	97	3.62	.811
Although we don't have to attend daily classes, I still try to distribute my studying time evenly across days.	97	3.54	1

The data from the time management domain survey results showed that the highest average value is in Q15 with $M=3.64$ and $SD=.911$ of which the statement is "I try to schedule the same time every day or every week to study for my online courses, and I observe the schedule". Then the lowest average result is in Q16 with $M=3.54$ and $SD=1.072$ of which the statement is "Although we don't have to attend daily classes, I still try to distribute my studying time evenly across days". Even though students chose scale 3-4 for time management domain – which means they are mostly neither agree or disagree with the statements – undergraduate thesis supervisors should make them become more attentive of their time management. Lack of time, as [Uzuner \(2008\)](#) reviewed, was one of the problems that English as a second language researchers faced in publishing their research internationally. Therefore, as English foreign language learners, discipline in time management should be practiced and developed early in the process of writing an undergraduate thesis.

Finally, the sixth domain is related to task strategies ($M=3.43$, $SD=.981$). Table 11 presents the task strategies domain of the participants' online self-regulated learning strategies in the process of writing their undergraduate theses.

Table 7. Task Strategies Domain

Statements	N	Mean	Std. Deviation
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I try to take more thorough notes for my online courses because notes are even more important for learning online than in a regular classroom.	97	3.70	.975
I read aloud instructional materials posted online to fight against distractions.	97	3.41	1
I work extra problems in my online courses in addition to the assigned ones to master the course content.	97	3.39	.949
I prepare my questions before joining in the chat room and discussion.	97	3.25	1

The data shows that the highest average value is in Q10 with $M=3.70$ and $SD=.975$ of which the statement is "I try to take more thorough notes for my online courses because notes are even more important for learning online than in a regular classroom". This result indicates that the participants were aware of the function of note taking as an educational tool to enhance learning as stated by [Wittek \(2016\)](#), who noted that writing can be a tool for thinking and learning. Next, Q12 "I prepare my questions before joining in the chat room and discussion" had the lowest average result with $M=3.25$ and $SD=1.101$. The mean score and standard deviation for all items in task strategies are $M=3.43$, $SD=.981$.

CONCLUSIONS

The participants' online self-regulated learning strategies during the process of writing undergraduate thesis had been described. The domain with the highest mean score is in the environment structuring, while the second highest mean score is in the help-seeking, followed by self-evaluation, goal setting, time management, and the lowest mean score is the task strategy). The highest mean score is in Q6 "I choose the location where I study to avoid too much distraction" while the lowest mean score is in Q12 "I prepare my questions before joining in the chat room and discussion". In sum, it can be said that the participants had good self-regulation online learning strategies in the process of writing their undergraduate theses at the time of COVID-19 pandemic. They most likely used environment structuring, help-seeking, and self-evaluation as self-regulated learning strategies. However, the ability of self-regulated learning strategies in the task strategy domain had the lowest average score. The result showed that the ability in task strategies possessed was still lacking. According to the finding, in the process of writing undergraduate thesis, the participants' ability in task strategies needed to be improved. For further research, the researchers recommend further investigation on the relationship between undergraduate students' motivation and ability in implementing their self-regulated online learning strategies in writing their undergraduate theses. Future research should also include metacognitive learning strategies and re-examine the relationship of undergraduate students' online self-regulated learning strategies to their online learning performance in writing their undergraduate theses.

There are some limitations to this study. First, the scope of the study was limited to one batch of students who are in progress in writing their undergraduate thesis with fully online learning thesis supervision during the COVID-19 pandemic. As a consequence, the result might not be generalized in a larger context and situation. Second, this study was not supported by participants' interviews which could potentially enrich the discussion on the results of how and why some strategies had higher mean scores than the others.

Despite these limitations, this study contributes to the scholarship of EFL academic writing

in the higher education context in describing students' online self-regulated learning strategies at the time of COVID-19 pandemic. This study is the first attempt at survey study for the said topic, therefore it can be conceptually adopted by other researchers working in a similar context in post-COVID-19 pandemic. Practically, this study also has implications for instructors supervising online undergraduate thesis writing. First, undergraduate thesis supervisors should ensure that their thesis supervisees diligently fill in their undergraduate thesis writing progress at the faculty web-based undergraduate thesis system (*Sistem Informasi Manajemen Tugas Akhir/SIM TA*). By being disciplined in writing the process and recording it in the system, students will have better awareness of goal setting, time management, and task strategies in the process of writing their undergraduate theses. Second, undergraduate thesis supervisors should encourage these supervisees to set a goal to publish their undergraduate thesis manuscript and strengthen their identity as researchers in the making as part of goal-setting strategies. By doing so, students can be more enthusiastic in practicing their online self-regulated learning strategies when working on their undergraduate theses.

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APPENDIX

Indonesian Translation of Online Self-Regulated Learning Questionnaire (OSLQ) questionnaire
([Barnard et al., 2009](#)).

Items	Statement	Domains
1	Saya menetapkan standar untuk tugas saya dalam kursus online.	Penetapan Tujuan
2	Saya menetapkan tujuan jangka pendek (harian atau mingguan) serta tujuan jangka panjang (bulanan atau semester).	
3	Saya menjaga standar yang tinggi untuk pembelajaran saya dalam kursus online saya.	
4	Saya menetapkan tujuan untuk membantu saya mengatur waktu belajar untuk kursus online saya.	
5	Saya tidak mengkompromikan kualitas pekerjaan saya karena ini online.	
6	Saya memilih lokasi di mana saya belajar untuk menghindari terlalu banyak gangguan.	Penataan Lingkungan
7	Saya menemukan tempat yang nyaman untuk belajar.	
8	Saya tahu di mana saya bisa belajar paling efisien untuk kursus online.	
9	Saya memilih waktu dengan sedikit gangguan untuk belajar untuk kursus online saya.	
10	Saya mencoba membuat catatan yang lebih teliti untuk kursus online saya karena catatan bahkan lebih penting untuk belajar online daripada di kelas reguler.	Strategi Tugas
11	Saya membacakan materi instruksional yang diposting online untuk melawan gangguan.	
12	Saya menyiapkan pertanyaan saya sebelum bergabung di ruang obrolan dan diskusi.	
13	Saya mengerjakan masalah ekstra dalam kursus online saya selain yang ditugaskan untuk menguasai konten kursus.	
14	Saya mengalokasikan waktu belajar ekstra untuk kursus online saya karena saya tahu ini menuntut waktu.	Manajemen Waktu
15	Saya mencoba menjadwalkan waktu yang sama setiap hari atau setiap minggu untuk belajar kursus online saya, dan saya mengamati jadwalnya.	
16	Meskipun kami tidak harus menghadiri kelas harian, saya tetap berusaha mendistribusikan waktu belajar saya secara merata di setiap hari.	
17	Saya menemukan seseorang yang berpengetahuan luas dalam konten kursus sehingga saya dapat berkonsultasi dengannya ketika saya membutuhkan bantuan.	Pencarian Bantuan
18	Saya berbagi masalah saya dengan teman sekelas saya secara online sehingga kami tahu apa yang kami perjuangkan dan bagaimana menyelesaikan masalah kami.	
19	Jika diperlukan, saya mencoba untuk bertemu dengan teman sekelas saya secara langsung.	
20	Saya gigih dalam mendapatkan bantuan dari instruktur melalui email.	
21	Saya merangkum pembelajaran saya dalam kursus online untuk menguji pemahaman saya tentang apa yang telah saya pelajari.	Evaluasi Diri

- 22 Saya bertanya pada diri sendiri banyak pertanyaan tentang materi kursus ketika belajar untuk kursus online.
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- 23 Saya berkomunikasi dengan teman sekelas saya untuk mengetahui apa yang saya lakukan di kelas online saya.
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- 24 Saya berkomunikasi dengan teman sekelas saya untuk mengetahui apa yang saya pelajari yang berbeda dari apa yang mereka pelajari.
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