

INVESTIGATING EFL HIGH SCHOOL STUDENTS' METACOGNITIVE AWARENESS IN WRITING

Yoannes Yuka Krisdianata¹

Universitas Sanata Dharma, Yogyakarta, Indonesia e-mail: 211242003@student.usd.ac.id¹

Paulus Kuswandono²

Universitas Sanata Dharma, Yogykarta, Indonesia e-mail: kus@usd.ac.id²

Abstract

Metacognitive awareness was beneficial when implemented in learning activities, especially in writing skills. This research was conducted to explore students' metacognitive awareness in writing. The participants were 30 high school students. Metacognitive knowledge and regulation from Brown (1987) and Knospe (2018) were employed to get a report on students' awareness in writing. Metacognitive knowledge is formed from declarative knowledge, procedural knowledge, and conditional knowledge, all of which consisted of planning, monitoring, and evaluating. A cross-sectional survey method was conducted to investigate the data collected. Questionnaires were used to collect the data, then analyzed partially using descriptive analysis, and reported in tables. The data displays that the declarative knowledge and task were respectively 35.1 % and 17.3%; procedural knowledge was 27.7 %; and, conditional knowledge was at 14.2%. Likewise, the results from Metacognitive regulation reported by senior high school students were planning 14.4%, monitoring 24%, and evaluating 11.1%, all of which are categorized at a low level of understanding. The result showed that high school students demonstrated a low level of metacognitive knowledge and regulation in writing descriptive text.

Keywords: writing; metacognitive knowledge; metacognitive regulation

1. INTRODUCTION

Learning strategies are crucial to be introduced to and acquired by learners as they can assist students for sustainable life-long learning. The examples strategies learning are planning, practicing, monitoring, evaluating, and (Rodrigues et al., observing 2018). Implementing these strategies can help learners to learn effectively, especially when learning something new as they need more contrived effort to master (Baranova et al., 2019, p. 3; Hong & Ganapathy, 2017, p. 19). Furthermore, one prospective strategy is metacognition. According to Mbato (2013, p. 25), metacognition is the learners' awareness of employing some strategies to achieve

specific knowledge or skill. Metacognitive knowledge is related to a person's knowledge regarding his/her cognitive process (Flavell, 1979). Metacognitive knowledge consists of declarative, procedural, and, conditional knowledge (Brown, 1987, p. 67). In addition, metacognitive contains regulation planning & drafting, monitoring, revision, and, evaluation (Maftoon et al., 2014). English as a foreign language in Indonesia can be so challenging to learn that they need more effort to overcome many issues in learning.

Learning English as Foreign Language (EFL) is challenging for most Indonesian people (Putri et al., 2018, p.





80). This idea was proven by the data **English** First **English** from (EP) Proficiency Index (EF EPI EF English Proficiency Index, 2020) which shows that Indonesia is ranked 74 from 100 nonnative English countries and number 15 in Asia. The CEFR score an average of 453 or in B1 is referred to low proficiency in English skills acquisition. In English, four main skills should be mastered to be able to perform this language well, namely speaking, writing, reading, and, listening. However, based on the common known. English is one international language, yet Indonesian people still struggle to use it. A study conducted by Patahuddin et al. (2017, p. 131), claims that Indonesian learners still struggle in learning EFL.

Balta (2018) stated that the awareness of a student in thinking is significant to retain. This awareness can lead the students to see the best way in learning, revise potential errors, and provide solutions when facing problems. The consciousness of direction on what to know and how to know that affect the option and result of cognitive endeavours called metacognitive awareness (Flavell, 1979). The significance of metacognitive awareness in writing has become the focus of research several decades ago (M. F. Teng, 2021; Zheng et 2018). There are al.. many recommendations on how to apply metacognitive awareness in writing. Furthermore, students need to be aware of their performance. Students are cognizant to decide their best way in the process and strategies to improve their metacognitive in writing.

Although learners start to use some strategies to keep the learning spirit such as using numerous social media and online platforms (Nugroho & Rahmawati, 2020), it seems that they are not really effective and efficient in learning EFL. Another research by Fauzan et al. (2020, p. 519) argues that from the four skills in learning EFL, the most difficult one is writing skill. Supporting the previous Linuwih & Winardi study, (2020)expressed a similar opinion to Fauzan's that writing is the greatest problematic matter that needs to be solved in Indonesian students. The reasons are because they are not familiar with the spelling, grammatical rules, and part of speech. However, as Jusmaya (2017) states, grammar should be the core component in EFL. Learning a foreign language is tough work if the learner lacks structure of the language itself. English and Indonesian have a diverse style of writing a sentence and even a word. Indonesian words rarely have double or triple vowel side-by-side directly in a single word, i.e. good, wood, should, and could (Mohamad et al., 2021, p. 113; Muhassin et al., 2020, p. 12). Therefore, there is an urgent need to research writing skills in EFL learners.

As one of the production skills besides speaking skills, writing is a conceptual activity. Learners should make a plan, outline, and produce the writing product. They also should monitor and evaluate their writing product (Mbato & Cendra, 2019). In sum, writing is not just a single-shot activity, but is more like a circle and repetition of activities to produce a well-written product. Metacognitive offers some strategies to overcome some issues and provide some strategies in learning, such as planning, monitoring, and evaluating (Mbato, 2013, p. 25; Mbato & Cendra, 2019, p. 67). Therefore, one of the strategies used in writing is by conducting metacognitive strategies in writing. So far there have been limited studies on high school students' metacognition awareness in writing. There are plenty of studies in under and postgraduate programs, but for junior or senior high school there are few in this field.





In this study, the researchers aimed to investigate the learning process in writing using metacognitive strategies. There is still a gap that needs to be bridged in a teenager age range. So, this research discusses metacognitive knowledge and regulation in high school students. They around 15 to 17 years are old. Furthermore, the previous studies in metacognition were undertaken in the educational setting of Iran, Taiwan, and Hongkong (Farahian, 2015; Luo, 2019; Maftoon et al., 2014). Therefore in this research, the place of the research was conducted in Indonesia, in one of a private school in Yogyakarta.

This research was conducted to investigate the factors of metacognitive knowledge and regulation reported by senior high school students. Up to now, there are not many studies related to metacognitive awareness in conducted in senior high school. For that reason, there is no doubt about the novelty of this study. The skill-focused in this research is writing skill. Even though senior high school students are not demanded to write an academic written product, they still need to accomplish some assignments in writing (Nasihah & Cahyono, 2017). To answer the objective of the research, the researcher formulates two research questions, namely:

- 1. What are the elements of metacognitive writing knowledge about **EFL** reported by senior high school students?
- 2. What are the elements of metacognitive regulation about EFL writing reported by senior high school students?

2. LITERATURE REVIEW 2.1Writing Skill

Writing is the result of a deep understanding of something and after that put it into some kind of product that symbols, consists of marks. and characters. This action needs a deeper

understanding of what students need to write. Students should aware of what they want to write and what strategies are necessary to use to compose meaningful writing products (Linuwih & Winardi, 2020). Successfully understanding and implementing this skill can be beneficial for students in expressing their thoughts and ideas. Students can easily deliver their thinking in terms of writing.

There are several strategies improve students writing skills. Some of them are, implementing mobile learning applications, brainwriting, metacognitive strategies (Linuwih Winardi, 2020; Wijaya & Mbato, 2020; Yulianti et al., 2019). Metacognitive strategies are considered to have a bigger potential in boosting students' writing skills. Wijaya & Mbato (2020) state that, metacognitive strategies have a big impact in resolving difficulties and challenges that students face. Furthermore, there are main steps in metacognitive three strategies which are making a plan, monitoring, and performing an evaluation. According to Goctu (2017) making a plan writing associated is understanding the audience, purpose, and idea of the writing subject. Brainstorming is crucial in this phase. Making a plan occurred before the writer start writing. The next step is monitoring. After deciding the audience, purpose, and idea of writing, the writer can start his writing. While writing, writers should be aware of what they are doing. The development of the writing needs to be controlled, it should be checked and verified to minimize errors and mistakes at the same time when writing. The last step is evaluating what they already wrote. This part happens after finishing the writing. In this step, the writer is required to contemplate some strategies or actions to finish the writing product and ruminate his writing features in his text. This strategy will be much more efficient if it is done in





pairs like peer assessment. After carrying out these steps, students can produce good writing products and likewise improve writing skills.

2.2 Metacognitive Knowledge

The process by which cognition is controlled or understood is called metacognitive knowledge. The cognition from a person's memory, experiences, task, and goal. According to F. Teng (2020, p. 2) metacognitive knowledge has a big role to boost students' learning process and learning outcomes. By understanding the way to control students' cognition, they can get a greater achievement.

Metacognitive knowledge has a major role in improving students' skills in learning language, especially writing skills (F. Teng, 2020, p. 2). Metacognitive knowledge has an influence on teachers in guiding their students in improving their skills. Metacognition itself has a meaning as the knowledge of cognitive phenomena and cognition of phenomena (Flavell, 1979). Knospe (2018) states that several positive impacts happen when a student implements metacognitive knowledge in his learning activity. It is said that students are reported to have great quality and effective learning, automatic learning, and self-regulated learning.

Knospe (2018)separates metacognitive knowledge into sections namely, declarative knowledge, procedural knowledge, and conditional knowledge. Declarative knowledge has a focus on the student itself. The concern is about students' factual knowledge and cognition. Declarative knowledge is including ability, task, plan, and emotional factors inside the student. This explanation is alike to that found in F. Teng (2020) who writes declarative knowledge focus on students' ability and process academic that affects achievement. Furthermore. procedural knowledge and declarative knowledge are interlinked one and another. Procedural knowledge has a role to understand and operate declarative knowledge. Procedural knowledge is the knowledge to use declarative knowledge. This knowledge is used to solve a problem and complete an assignment. Therefore, procedural knowledge has a significant role in strategy selection and effectiveness. Last, conditional knowledge is the knowledge about time, place, and reason to formulate declarative and procedural knowledge. This knowledge is associated with students' awareness of making choosing specific strategies in learning.

2.3Metacognitive Regulation

Brown (1987)describes metacognitive regulation as control and experiences that students recognize through several encounters by themselves. The study of metacognitive regulation, in particular, has been investigated by some researchers (Crescenzi, 2016; Stephanou Mpiontini, Metacognitive 2017). regulation is concerned with internal stimuli and external stimuli. This condition may have an impact on the student. However, the student will persevere and continue to study and train because thev have metacognitive regulation.

F. Teng (2020) mentions three skills that need to be learned, namely planning, monitoring, and evaluating. Planning in metacognitive regulation means aptitude to choose adequate strategies and accommodate necessary resources for a certain assignment. Moreover, Monitoring in metacognitive regulation means the monitoring process on performing a specific assignment. Finally, Evaluating metacognitive regulation has a meaningful influence when a person learns they can consider their result and process.





3. RESEARCH METHOD

A cross-sectional survey by Lavrakas (2013) was proposed to collect data. This survey was conducted to draw inferences about a population in a private vocational high school in Yogyakarta in November 2021. The researcher used percentages and numbers of the finding to get a better understanding of what elements metacognitive knowledge and regulation as reported by senior high school students. In this study, the data were collected and then analyzed using the SPSS program to the element of metacognitive find knowledge and regulation.

The participants were chosen using a sampling technique. random population was targeted for the whole class. In grade tenth, there was a total of 41 students from three study programs, comprising of 17 males and 24 females. From that total population, 30 students (73%) consisting of 10 males and 20 females voluntarily expressed their consent to participate. These samples were considered sufficient to represent the whole participants. The participants were around 14 to 19 years old. They are from several provinces in Indonesia, so the variation could enrich the result. The questionnaire was distributed to the participants through an online learning platform namely google classroom. The researcher posted the questionnaire in google classroom so the participants could fill the questionnaire after finished writing the descriptive assignment.

The participants were asked to write an essay according to the topic. According to Gunstone (2021), giving a proper task writing before conducting metacognitive research was important to connect the metacognitive knowledge into real activity. After they finished the writing activity, they had time to fill out the provided questionnaire. The result of the questionnaire was examined using the SPSS program to know the percentages of the element of metacognitive knowledge and regulation

The collected data from the questionnaire were analyzed using a descriptive statistic to find the percentages and SD using the SPSS program. The result was presented in a form of a table. The result showed the metacognition of knowledge and regulation applied as reported by the participants.

4. RESULT AND DISCUSSION

The result from the percentage of the metacognitive awareness in writing was served from a survey conducted to 30 senior high school students. The survey used a questionnaire of metacognitive awareness writing. There were high, intermediate, and low metacognitive awareness levels in writing reported by the students from the survey. The result showed that 20% of students have high 66,7% metacognitive awareness, students reported having intermediate metacognitive awareness, and 13% of participants reported low metacognitive Metacognitive awareness levels. knowledge and metacognitive regulation were conducted in this survey metacognitive awareness in writing.

4.1 Metacognitive Knowledge

Metacognitive knowledge contained three aspects as follows declaration, procedure, and condition of knowledge. Declaration of knowledge is divided into two parts namely person in Table 1 and task in Table 2.

Senior high school students reported in the survey that they felt a low declaration of personal knowledge. The survey result showed that students acquired low self-knowledge in Table 1. Matters concerning self-awareness and self-belief in their ability to deal with writing descriptive texts were low. Onethird of participants of this survey reported that in their opinion, experiences





understanding were and possibly demonstrated from their writing ability. Moreover, this statement was supported by the next report said writing was less difficult than other language skills namely listening, speaking, and reading. Only a few, around 10% or three students otherwise. Declaration reported knowledge from a personal perspective is grouped into the intermediate level.

Table 1. Awareness of declarative knowledge (person)

No	Statement	Freq.	%
1.	Writing is a form of knowledge and experience.	10	33.3
2.	Critical thinking in writing is more important than other skills.	4	13.3
3.	The belief in writing skill, not as a talent, but intensive practice.	12	40.0
4.	The effectiveness of writing is based on the topic.	12	40.0
5.	Understanding writing strategies is an important skill.	17	56.7
6.	Minimalizing mistakes in every stage.	15	50.0
7.	Minimalizing mistakes in the structure and linguistic rules.	2	6.7
8.	Paying attention to vocabulary, diction, and grammar	13	43.3
9.	The awareness in revising	10	33.3

This was stated by the students informing intensive writing practices helped them improve their writing ability. The report said that the participants commonly wrote what they understand and they need to be aware of planning, developing, and revising their writing product or known as writing strategies. Students told when they were writing, they tried to avoid errors in writing. However, only two participants

confidently stated that they rarely made mistakes. A great number of students reported that they were sometimes unintentionally made errors in structure and language features in their writing product. In addition, the need to write down their ideas whenever participants got one is in intermediate level same as their awareness of grammar and vocabulary choices when writing.

Table showed the students' awareness in knowledge declaration of tasks. From the table, the survey reported that students demonstrated a low level of a declaration task knowledge. of Assignment, as seen in the declaration of knowledge, indicated understanding. Students were neither familiar with numerous text genres nor skillful presenting writing products. The report stated it was hard for students to create unity and consistency in sentences and paragraphs. The survey's result showed that students were not aware of coherence in writing. They were hard to say whether the writing has a good connection from each idea in paragraphs or not. On the other hand, the report stated weak awareness of students in recognizing that writing is started from the main idea and then develops with a number of supportive sentences.

Table 2. Awareness of Declarative Knowledge (Tasks)

Statement	Freq.	%
1 Awareness of the text genres variety.	4	13.3
2 . Awareness of the structure and linguistic rules of the text.	11	36.7
3. Paying attention to the elements of cohesion and coherence.	3	10.0
4. Recognizing the writing that has a coherent relationship.	2	6.7
5. Paying attention to the main sentence and support sentences.	6	20.0

Participants in this survey showed an intermediate level in the procedure of





knowledge. The result can be seen in Table 3. They have reported that they realize the necessity to plan, cultivate thinking, revise, and evaluate writing. However, only a few of them learned writing strategies from childhood. This condition was in line with students' awareness of the structure and language features of descriptive text. This situation has prompted how they produce a text.

Table 3. Awareness of Procedural Knowledge

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No.	Statement	Freq.	%
1.	Awareness of	12	40.0
	planning, developing,		
	revising, and		
	evaluating.		
2.	Writing strategies	7	23.3
	arise from an early		
	stage.		
3.	Paying attention to	6	20.0
	the structure and		
	linguistic rules of the		
	text.		

The condition of knowledge reported from the survey stated that students were at a low level. The student's ability to produce good procedure text was poor. Few participants were aware of the timing to use the strategies in writing descriptive text. They reported that they know about arranging, developing ideas, and revising the writing. Students' capacity to change the strategies that were not helpful to their writing was very poor. They were not alert strategies used in the writing descriptive text. Whereas, the report stated that some of the students were aware of their main problem in writing and where to find it. The result can be seen from table 4. awareness of conditional knowledge.

Table 4. Awareness of Conditional Knowledge

No	Statement	Freq.	%
1.	Awareness to use precise	6	20.0

	writing strategy.		
2.	Awareness to use effective writing strategy.	2	6.7
3.	Awareness to employ alternative strategy.	2	6.7
4.	Awareness of the main problems encountered in writing.	7	23.3

4.2 Metacognitive Regulation

The next section was cognition regulation. There were three parts in this section that were planning, monitoring, and evaluating. The statements provided in the table were purposely to define the metacognitive awareness of cognition regulation. These results were presented in separate tables which were table 5, table 6, and table 7. Table 5 was for the planning part, table 6 has the aim for explaining monitoring, and the last table was for the evaluation part.

The planning part is the beginning of metacognitive awareness in writing, especially in cognitive regulation. The level of metacognitive awareness in writing in relationship with the planning was considered low. The element of metacognitive regulation (planning) can be seen from table 5. regulation of cognition (planning). Reading is one of the fundamental steps before students start to write, particularly when they were aware of it, and have already done it. However, the others act of planning in cognitive regulation looked quite weak. These were shown from the result reported by the students from the survey in preparing an outline before writing and visualizing the writing in terms of making chats, pictures, and frames. Students also feel uneasy because they had limited access to their language features. In addition, the writing attitude seems to be forgotten by students. They were rarely set goals as well as sub-goals. On the contrary, students were having fewer errors starting to write in the beginning.

Table 5. Regulation of Cognition (Planning)



Table 6 Degulation of Cognition (Manitaring)



No	Statement	Freq.	%
1.	Preparing an outline for writing.	4	13.3
2.	Making errors at the beginning of writing.	3	10.0
3.	Visualizing the writing.	2	6.7
4.	Planning for writing.	5	16.7
5.	Setting goals and sub-goals in writing.	2	6.7
6.	Reading before writing.	10	33.3

Cognitive regulation after planning was a monitoring phase. This part was dealing with students' effort. The outcome of the questionnaire can be seen from regulation table 6. of cognition There (monitoring). were several components in monitoring, such as time allocation, devotion, anticipation, circumstance, and acceptance of support and help from others. Students' cognitive regulation in monitoring their writing was at the intermediate level. The students' prior knowledge played a major role in their writing. Moreover, they reported that students felt easy and comfortable in finishing their writing when surrounding was supporting. They stated that they can be more focused and ponder. Regarding writing style, they define themselves as a simple person. They frequently write what they just think. Furthermore, when students felt they cannot write with multifaceted sentences, students pick simple sentences but the sentence must be communicative and effective. Additionally, avoiding difficult grammar and vocabulary was students' tendency in writing. Students reported that discussing with peers helps them to have better writing in a comfortable place and time. Despite having proper time and place, many students felt a lack of time management while writing. In addition, students stated that they were in a way more focused on delivering the value than giving detail to their writing. Thus, they put some effort to have good structure and language features.

Table 6. Regulation of Cognition (Monitoring)				
No	Statement	Freq.	%	
1.	Writing a series of sentences.	10	33.3	
2.	Developing the ideas based on the background of knowledge.	7	23.3	
3.	Monitoring the focus of writing.	5	16.7	
4.	Focusing on the structure, languages, and coherence of the text.	5	16.7	
5.	Time management in writing.	2	6.7	
6.	Choosing the right place and time to write.	5	16.7	
7.	Avoid bizarre vocabulary and difficult grammar.	9	30.0	
8.	Choices of complex or simple sentences in the text.	10	33.3	
9.	The implementation of peer reviews.	6	20.0	
10.	The influence of environment on the writing performance.	13	43.3	

Table 7. Regulation of cognition (evaluation) showed the last skill from metacognitive regulation. In cognitive regulation in evaluation, students rarely made revisions after finishing their writing in terms of language features and comprehensiveness of thoughts. On the other hand, they reported in the survey that they only revise the grammar and structure of the text.

Table 7. Regulation of Cognition (Evaluation)

No	Statement	Freq.	%
1.	Revising the writing after finished.	7	23.3
2.	Revising the language rules of the text.	1	3.3
3.	Revising the coherence of the text	2	6.7

The influence of metacognitive awareness on the aptitude to write a descriptive text. One of the factors affecting the aptitude to write descriptive text is metacognitive awareness. Therefore, Pearson Product Moment (Correlation) was used to investigate how far metacognitive awareness aptitude to



write a descriptive text. The result shows in table 8.

Table 8. Product Moment of Correlation Test

Based on table 8, the correlation coefficient value of metacognitive awareness and descriptive text is 0.828 (p=0.01). These outcomes point out that the connection between the metacognitive awareness variable and the descriptive text writing variable is 0.828. This connection demonstrates a very strong and positive connection between the two variables because it is in the range of 0.80 - 1.00. These outcomes also reported that the sample who has a high score in writing descriptive text indicated a high score of metacognitive awareness. In contrast, the sample that has a low score in writing descriptive text presented a low score of metacognitive awareness. Thus, the level of a person's metacognitive awareness has an impact on the ability to write descriptive texts.

To discover the contribution of metacognitive awareness to the aptitude writing descriptive text, a variable significance test was conducted. The result showed in table 9.

Table 9. Variable Significance Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828ª	.686	.674	.52235

a. Predictors: (Constant), Metacognitive Awareness

It can be said that there is a significant relationship between metacognitive awareness and the aptitude to write descriptive texts. Metacognitive awareness affects descriptive text writing skills. One of the factors of students' writing skills is metacognitive awareness. When students have a higher metacognitive level, awareness accordingly they also have high writing skills (Ramadhanti & Yanda, 2021, p. 200). On the contrary, students who have

low metacogniti ve awareness levels, accordingly have low writing skills.

Ramadhanti & Yanda (2021) stated that to get the result of significance of variables, a researcher needs to have a test. The R square value in Table 9 is 0.686. Rahayu et al. (2020) stated that to find out the contribution between variable X and variable Y can be determined using the coefficient of determination formula as follows:

 $KP = r2 \times 100\% KP = (0.828)2 x$ 100% KP = 68% KP value = 68%. Thusfar, for the formula KP=R2 x 100%, the result is 68%. This indicates that metacognitive awareness contributes to 68% of factor that affects descriptive text writing skills, while the rest comes from other factors or variables. From that result, it can be suggested that metacognitive awareness in students needs to be improved. Metacognitive awareness can improve someone's skill in writing. Applying metacognitive strategies can improve awareness of metacognition in writing. When someone has a higher metacognitive awareness level, it can be assumed that s/he will have better writing quality.

5. CONCLUSION

The study of metacognitive awareness in writing descriptive text in senior high school students showed an intermediate to low level of metacognitive awareness. Students seemed unaware metacognitive knowledge and metacognitive regulation. The elements of metacognitive knowledge reported by senior high school students were declarative knowledge, procedural knowledge, and conditional knowledge. The declarative knowledge displayed at 35.1 % for personal and 17.3% for tasks indicate a low level of understanding. Procedural knowledge displayed by the was only at 27.7 understanding, which was included at a

	Correlations		
		Metacognitive Awareness	Descriptive text
Metacognitive Awareness	Pearson Correlation	1	.828**
	Sig. (2-tailed)		.000
	N	30	30
Descriptive text	Pearson Correlation	.828**	1
	Sig. (2-tailed)	.000	
	N	30	30





low level of understanding. The last part was conditional knowledge which is at understanding. 14.2% of This considered as a low level of understanding metacognitive knowledge conditional knowledge. Similar to metacognitive knowledge, metacognitive regulation was also indicated at a low level of understanding. The elements of metacognitive regulation reported by senior high school students were planning, monitoring, and evaluating. All of the elements were similarly reported as at the low levels of understanding. Planning, monitoring, and evaluating metacognitive regulation were reported respectively at 14.4%, 24%, and 11.1%. It is quite obvious that evaluation is the lowest score for metacognitive regulation, while the highest score for metacognitive knowledge was personal declarative knowledge.

Metacognitive knowledge can be achieved by helping students to apply metacognitive strategies in the writing process. In addition, teachers can help students use planning, monitoring, and evaluating whenever they have writing activities in class. students SO unconsciously train their metacognition regulation. Students who are diligently practicing metacognitive awareness, knowledge, and regulation, can have a better understanding and ability in writing. A teacher may provide reinforcement and feedback for students in class and outside the class when students do an individual study. For future research direction, it would be beneficial for students and teachers if they can conduct a study on the implementation of metacognitive knowledge and regulation with intention of train metacognitive skills. This study is important to help teachers, educational facilitators, and students to maintain and improve their metacognitive skills.

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