

THE ROLE OF METACOGNITIVE STRATEGIES AND AWARENESS IN WRITING TASK PERFORMANCE

Wahyu Kyestiati Sumarno

Universitas Pembangunan Nasional "Veteran" Jawa Timur
wahyu.kyestiati.ds@upnjatim.ac.id

Abstract: Metacognition describes the process by which students plan, monitor, evaluate, and make changes to their learning habits. Metacognition is important for successful learning because it allows students to organize their thinking skills and improve their weaknesses. Recent research indicates that metacognitively aware students are more thoughtful and perform better than unaware students. Numerous studies have investigated the role of metacognition in L2 instructions, specifically in reading performance, yet there has been little research discussing the impact of metacognition in writing task performance. This current study reports the role of metacognitive strategies and awareness in an L2 writing lesson. Twenty-two English Department students of a private university in Lamongan Regency, East Java, Indonesia were surveyed to gain information about their knowledge about cognition (which is including declarative, procedural, and conditional knowledge) and their regulation of cognition (which is about the way they plan, implement strategies, monitor, correct comprehension errors, and evaluate their learning), by using A Metacognitive Awareness Inventory (by Schraw& Dennison, 1994). Their writing performance after experiencing metacognitive learning strategies was also evaluated holistically by using a writing rubric. The finding reveals that metacognitive strategies and awareness have important implications for writing task performance.

Keywords: *metacognitive, strategies, awareness, L2 writing*

INTRODUCTION

This study was conducted for several reasons. First, considering the observation notes that were taken by the researcher from the beginning of the semester until the midterm test. The notes showed that the students did not follow the steps of process-oriented writing which they have learned and just writing unorganizedly. Whereas, the students were taught about the steps of process-oriented writing in the previous semester (during the essay writing course). It was initially assumed that the students would apply these steps when they should write in the following writing course. Yet, the researcher found just the opposite.

Furthermore, in the written feedback session, most of the students confessed that they forgot about the process-oriented writing steps and need more guidance to apply them in different context. They said that they wrote naturally to finish the tasks, without thinking about what they exactly need to do to write structurally. In this case, the researcher regarded them to have poor metacognitive awareness.

Secondly, many studies have shown that understanding the metacognitive process for studying is beneficial. Nasrudin & Azizah in 2020 linked metacognitive and misconception to solve their students' problem. The study indicated that the implementation of metacognitive teaching can overcome the students' misconceptions in energetic material. Arslan, et al. in 2013 also did a research to examine the relationship between metacognition and grit. It was found that the two-dimensions of grit (consistency of interest and perseverance of effort) predicted metacognition positively. In addition, in 2010, Erskine conducted a study to assess first-year university students' metacognitive awareness and usage. The results showed that there was no initial difference whether the students experienced direct and specific metacognitive training or engaged in weekly metacognitive reflection assignment, yet a significant difference was found between the

students who were prompted or not prompted about their use of metacognition at the end of the term. These studies' findings actually indicated that recent research saw aware students to be more strategic, thoughtful, and perform better than unaware students.

For these reasons, the researcher tried to implement metacognition to improve her students' condition. She changed the learning strategies after the midterm test. She attempted to connect L2 writing instruction and metacognition because Shub in 1998 had said that teaching students how to take conscious control of their writing processes is teaching them how to think on a metacognitive level. Enabling them to develop conscious control over their composing processes helped them increase their writing skills. In addition, remembering that many studies have talked about metacognitive role in reading, but very few in writing. Therefore, a metacognitive strategy by using problematized scaffolding was applied in this study. The students were reminded to do each steps of process-oriented writing through a sequence of reflective questions as the problematized scaffolding. A Metacognitive Awareness Inventory was distributed in the end of the semester; right after the students did their final writing tasks. The students' writing performance in the midterm test and final test were compared and analyzed to see the impact of metacognitive writing strategies and awareness. Written feedback session was also given in the end of the course. This study then aimed to investigate the metacognitive awareness of the students after being taught using metacognitive strategies and the students' writing skills after being taught using metacognitive strategies.

Metacognition was widely defined by many experts in different words. Yet, generally it talks about the knowledge and control individuals have over their own cognition and learning experiences (Allen & Armour-Thomas, 1993). In other words, metacognition is the way the learners think about their own thinking (King, 2004). While metacognitive awareness refers to the ability to reflect upon, understand and control one's learning (Scraw, 1994). This includes the ability to reflect upon the task demand and independently select and employ the appropriate strategy.

Investigating metacognition in writing is worth to study. It will discover how students understand their own writing processes, and how they adapt their processes to evolving demands (Stewart, et. al., 2015). Knowing how their students understand their writing process will guide the teachers to better facilitate the students and hopefully will increase the students' awareness and writing performance.

Lavelle and Bushrow (2007) also observed that "writers at all levels rely on strategies, or patterns of writing tactics, to achieve their writing goals". These strategies are essentially metacognitive in nature. It means that unconsciously writing has been so close with metacognition. Making it conscious would be beneficial for the students when they learn to write well.

Metacognitive strategies are methods used to help students understand the way they learn; in other words, they are processes designed for students to 'think' about their 'thinking' (Inclusive Schools Network, 2015). Among the three metacognitive strategies, namely think aloud, organizational tools, and explicit teacher modeling, this study implemented the organizational tools, specifically in the form of problematized scaffolding (Sumarno, 2019). This study also tried to apply the basic metacognitive strategies (Dirker, 2010) which including connecting new information to former knowledge, selecting thinking strategies deliberately, and planning, monitoring, and evaluating thinking processes.

METHOD

This study was a descriptive qualitative study with 22 academic writing course students as the participants. They were in the 4th semester of an English Department in a private university in Lamongan Regency, East Java, Indonesia. To collect the data, the researcher used observation notes, written feedback session, Metacognitive Awareness Inventory, and the students' product of writings. The students' writings were assessed with a rubric of writing which contains evaluation for the content, organization, vocabulary, mechanics & punctuation of a writing product. Problematized scaffolding by Sumarno (2019) was utilized to guide the students became aware of their thinking process while writing. It contains a sequence of questions in each step of writing.

Data analyses were done by first, classifying the metacognitive coefficient to help producing subject distribution based on the data gotten from Metacognitive Awareness Inventory (MAI). From the subject distribution, the researcher categorized the students into high, moderate and low metacognitive awareness. Secondly, the researcher evaluated the students' writings by using the writing rubric. After that, the researcher analyzed and compared each group of metacognitive awareness and the students' writing scores. At last, the researcher answered the research questions based on the analysis and made conclusion.

FINDINGS AND DISCUSSION

Findings

To interpret the data gotten from the Metacognitive Awareness Inventory (MAI), the researcher made a classification of the coefficient scores into high, moderate, and low interpretation. Table 1 showed how the researcher made the classification.

Table 1. Classification of Metacognitive Coefficient

Coefficients	Interpretations
$0,70 < MF \leq 1,00$	High
$0,30 < MF \leq 0,70$	Moderate
$0,00 \leq MF \leq 0,30$	Low

After classifying, the researcher made the distribution of the subjects based on the classification table and the students' scores of MAI. The researcher put the students into three groups, namely high, moderate, and low criteria. The distribution of the subjects can be seen in Table 2.

Table 2. Subjects Distribution

Metacognition Factor (MF)	Criteria		
	High	Moderate	Low
Knowledge about Cognition (17)	10	5	7
Regulation of Cognition (35)	9	7	6
Cognition Awareness (52)	9	7	6

Finally, the researcher analyzed each group of subject distribution by comparing with the students' scores of writings. Table 3 showed the students' scores in the high metacognitive awareness group.

Table 3. High Metacognitive Awareness

Participant Codes	Midterm-test Scores	Final Test Scores
M 4.2	84	90
M 4.4	81	85
M 4.5	88	92
M 4.6	86	90
M 4.10	85	88
M 4.11	83	85
M 4.12	91	94
M 4.17	70	82
M 4.21	90	95

The researcher found based on table 3 that the students with high metacognitive awareness scores higher than the other students from the beginning. Based on their first written feedback, they were aware about the generic structure of the text they need to write but they forgot to apply the steps of process-oriented writing. Therefore, their scores of midterm test had been high, yet they were improved after experiencing the metacognitive strategies. The problematized scaffolding made them more thoughtful about their text content and choice of words, thus the quality of their writings was increased. Their final written feedback also indicated that after the midterm test, they tried to implement each step of process writing by the help of problematized scaffolding and it made their thinking process during the writing activities more structured and qualified.

Table 4 showed the students' scores in the moderate metacognitive awareness group.

Table 4. Moderate Metacognitive Awareness

Participant Codes	Midterm-test Scores	Final Test Scores
M 4.7	82	84
M 4.8	81	83
M 4.9	70	75
M 4.13	80	82
M 4.14	65	72
M 4.16	78	80
M 4.19	83	85

Table 4 indicated that the students with moderate metacognitive awareness seemed to be not serious in doing the writing task. Their scores were not bad as they actually understood their job, and somewhat aware about their thinking process but their writings showed that they were not finished accordingly. Whereas, their scores improved a little bit after the implementation of metacognitive strategies.

Table 5 showed the students' scores in the low metacognitive awareness group.

Table 5. Low Metacognitive Awareness

Participant Codes	Midterm-test Scores	Final Test Scores
M 4.1	72	80
M 4.3	75	75
M 4.15	86	90

M 4.18	77	75
M 4.20	70	75
M 4.22	84	80

It can be seen from table 5 that the students with low metacognitive scores tended to score lower than the other students. The researcher assumed that their competence is also low. Some students' final scores were better than their midterm test scores indicated that metacognitive strategies helped them. Yet, few of them sadly were stagnant or worse, showing that they were confused to implement the metacognitive strategies while they were writing.

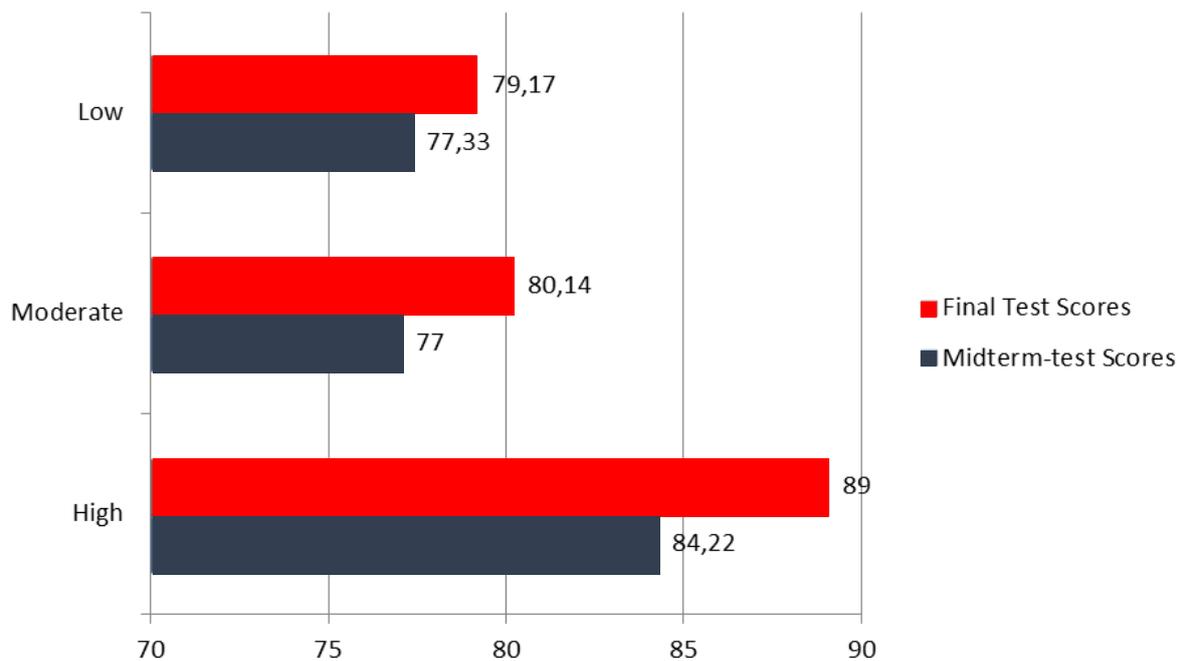


Figure 1. The Averages Comparison of the Test Scores

Figure 1 indicated that based on the average scores of the midterm and final test, the subject with high metacognitive awareness category got the highest results, followed by the moderate and then the low metacognitive awareness. It means that the higher the category of the subject, the writing performance quality will be higher as well.

Discussion

Based on the scores of Metacognitive Awareness Inventory (MAI), 9 students were regarded as highly aware of their own thinking while doing the writing task, 7 students were moderate, and 6 students were poorly (low) aware of their own thinking. It was indicated from their writing scores that the more aware a student, the more thoughtful and strategic he is, and as a consequence get the higher results.

The students' written feedback and researcher's observation before the midterm test showed that the students were unaware of their thinking process while writing, whereas after the final test, most written feedback told that they were following the problematized scaffolding and become more thoughtful along each step of the writing process. However, very few of them were still confused and need more guidance.

These findings were in line with the study of Nasrudin & Azizah (2020) who found that the implementation of metacognitive skills-based teaching materials can overcome the students' misconceptions in energetic material.

Erskine's research in 2010 also noted the similar findings. His study attempted to assess first-year university students' metacognitive awareness and usage at two levels, i.e. after direct and specific metacognitive training, and after engaging in weekly metacognitive reflection assignments. Results showed that there is a value in bringing metacognition to the immediate attention of university students, asking them to actively use it on a variety of topics, and then requiring them to reflect on their successes and/or failures around its use.

Furthermore, Ramli, et al.'s (2019) findings suggested that all variables (word recognition from speech, syntactic knowledge, metacognitive awareness, and self-efficacy) should be promoted in learning process for students' successful L2 listening comprehension.

To conclude, it can be said that metacognition is important for successful learning, including in the learning of writing, because it allows students to organize their thinking skills and improve their weaknesses. It was also shown that aware students are more thoughtful, strategic and perform better than unaware students.

CONCLUSION

Metacognitive strategies in the form of problematized scaffolding had helped the students to be more aware, thoughtful, and organized writers that led them to produce a better writing performance. However, there were still very few students who were confused in implementing the strategies and end up in stagnant or even worse results. These findings indicated that a follow up studies need to be conducted so that the unsuccessful students will get necessary aids.

REFERENCES

- Allen, B. A., & Armour-Thomas, E. (1993). Construct validation of metacognition. *The Journal of Psychology: Interdisciplinary and Applied*, 127(2), 203–211. <https://doi.org/10.1080/00223980.1993.9915555>
- Arslan, S., Akin, A., Çitemel, N. (2013). The Predictive Role of Grit on Metacognition in Turkish University Students. *Studia Psychologica*, 55(4), 311–320.
- Dirkes, M.A. (2010). Metacognition: Students in Charge of Their Thinking. *Roeper Review*, 8, 96-100. <https://doi.org/10.1080/02783198509552944>.
- Erskine, D.L. (2010). Effect of Prompted Reflection and Metacognitive Skill Instruction on University Freshmen's use of Metacognition. *Dissertation*. Brigham Young University.
- Inclusive Schools Network.(2015).*Metacognitive Strategies*. Retrieved from <https://inclusive.schools.org/metacognitive-strategies/>
- King, K. (2004). Just don't make me think: Metacognition in college classes. *15th Annual Conference on College Teaching and Learning*. Jacksonville, FL: Center for the Advancement of Teaching and Learning, p. 145-165.
- Lavelle, E., & Bushrow, K. (2007). Writing approaches of graduate students. *Educational Psychology*, 27(6), 807-822. <http://dx.doi.org/10.1080/01443410701366001>.
- Nasrudin, H. & Azizah, U. (2020). Overcoming Misconception in Energetic Topics through Implementation of Metacognitive Skills based Instructional Materials: A Case Study in Student of Chemistry Department, UNESA. *Jurnal Pendidikan IPA Indonesia JPPI*, 9(1), 125-134. <http://dx.doi.org/10.15294/jpii.v9i1.21630>
- Ramli, Mukminatien, N., Saukah, A., & Prayogo, J. A. (2019). Word Recognition from Speech, Syntactic Knowledge, Metacognitive Awareness, Self-Efficacy as determination for L2 Listening Comprehension. *International Journal of Instruction*, 12(3), 89-104. <https://doi.org/10.29333/iji.2019.1236a>.

- Schraw, G. & Dennison, R. S. (1994). Assessing Metacognitive Awareness. *Contemporary Educational Psychology*, 19(4), 460-475. <https://doi.org/10.1006/ceps.1994.1033>
- Shub, S. J. (1998). Metacognition in adolescent writers. *Theses Digitization Project*. San Bernardino: California State University.
- Stewar, G., Seifert, T.A. & Rolheiser, C. (2015). Anxiety and self-efficacy's relationship with undergraduate students' perceptions of the use of metacognitive writing strategies. *Canadian Journal for the Scholarship of Teaching and Learning*, 6(1), 1-17. <http://files.eric.ed.gov/fulltext/EJ1057729.pdf>
- Sumarno, W.K. (2019). Effects of Edmodo-Assisted Process Writing with the Problematised Scaffolding on the Quality of Students' Writing. *Lingua Cultura*, 13 (1): 31-37. <https://doi.org/10.21512/lc.v13i1.5028>.