# Exploring Student's Metacognitive Strategies Through Self-Reflection in Writing Assessments

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## ABSTRACT

Writing is used as a tool for communication as well as learning, thinking, and organizing knowledge or ideas. Unfortunately, In Indonesian context, English writing represents a skill that is seen as exceptionally challenging for students. This study aimed to look into the metacognitive strategies employed by EFL students who were considered successful in writing assessments. The participants were seven students of English Education Master's Program at Universitas Negeri Jakarta who completed writing assessments at the C1 level on the website. The text analysis method was used in this study. At the end of the lesson, students' self-reflection was examined to determine their metacognitive strategies in the cognitive, social, affective, and motivational domains. Each student's metacognitive strategy applications were quantified, and the metacognitive strategy content was classified and reported interpretively. According to the findings, students are more likely to use a variety of metacognitive strategies with the cognitive domain being the most frequently used domain when completing writing assessments. They were discovered to be goal-oriented, with a greater likelihood of focusing not only on a course-related objective but additionally on an objective to improve their language learning abilities. Furthermore, this study suggests that self-reflection can be used to investigate students' learning strategies and to promote students' control over the writing skills learning process.

**Keywords**: metacognitive strategies, self-reflection, writing assessment

## INTRODUCTION

Learning strategies are regarded as essential tools for successful students because of their impact on language proficiency development and the promotion of accountable students (Cohen, 2011; Scharle & Szabo, 2000). Students engaged in conscious but unobservable mental behaviors

and actions to accomplish their learning objectives. Because learning strategies are dynamic, Strategic students can be adaptable in selecting appropriate strategies for specific tasks (Cohen, 2011; White, Schramm, & Chamot, 2007, Chamot, 2004).

Students use learning strategies to help them learn. Students who are tightly managed continually establish targets, use cognitive, affective, and motivational strategies, and continuously monitor and assess their own progress for the purpose to accomplish their goals for learning in a variety of factors present in a particular learning environment (Pintrich, 2000).

Metacognition is a useful strategy that is commonly used by successful students among the various types of strategies classified by function (Chamot, 2004; Flavell, 1979; Vandergrift & Tafahodtari; 2010). Many researchers believe that metacognition performs an executive function by allowing students to manage their cognitive abilities through strategy planning, organization, monitoring, and evaluation (Cohen, 2011; Cohen & Wang, 2018; Macaro, 2001; O'Malley & Chamot, 1990). In contrast, Oxford (2011, 2017) stated metacognition is believed to cover not solely cognition control but also emotion and social relationships; thus, she proposed the term "meta-strategy" to provide a more comprehensive view that incorporates metacognition to become one of its elements.

According to Oxford (2011, 2017), meta-strategies consist of four elements: cognition, emotion, motivation, and interpersonal interaction. Each element contains four meta-strategy sets which allow students to focus, make plans, organize, gather resources, and keep track of and assess their diverse processes of learning. They can employ autonomy to support them in accomplishing their learning goals with particular assignments throughout a particular educational setting (Oxford, 2017; Zimmerman & Kitsantas, 2014; Zimmerman, 2000; Zimmerman 2008).

Students are expected to have control over their learning in the following phases while focusing on an assignment: consideration, performance, and reflection (Oxford, 2011, 2017; Zimmerman, 2008). Students evaluate their own achievements after completing the assignment during the reflection phase (Oxford, 2011, 2017; Zimmerman, 2008). Students have to manage what they learn in each of the four components of English writing learning to accomplish their writing goals. Students must take part in extensive cognitive processes to generate reasonable concept organization and structured linguistics construction (Hochman & Wexler, 2017; Hyland, 2003). Furthermore, students must participate in an intensive cognitive process of writing as they deal with motivations and feelings, along with incorporating contextual factors into account. More importantly, they must be driven and committed to writing, develop their writing skills, track their usage of materials, and review their performance in a classroom setting which allows them to engage socially with other

students (Karlen & Compagnoni, 2017; Lei, 2016).

Many studies on the relationship between employing strategies and writing skills (e.g., Bai, Hu, & Gu, 2014; Hu & Chen, 2007) emphasize the techniques that students apply while developing writing designs. A few studies explore how strategy instruction can help students improve their writing skills (Bai, 2015; De Silva & Graham, 2015). More research is being conducted to examine the relationship between employing strategies and various factors such as motivation and tools for learning (Lei, 2016; Yeung, 2016). These studies are likely to focus on the overall strategies applied to assist students in learning. In the meantime, it appears that research focusing solely on student metacognition or having control over their writing learning is insufficient.

In the Indonesian context, English writing represents a skill that is seen as exceptionally challenging for students, who are typically portrayed as taking a less active role in their studies, having a negative attitude toward writing, having insufficient time for practice, and having inefficient writing course instructions and materials (Ismail et al. 2012; Ismail 2010). Furthermore, Students struggle with writing due to linguistic issues, cognitive problems with paragraph organization and structure of a text, and emotional problems such as mood swings and difficulty beginning to write (Rahmatunisa, 2014). As a result of such concerns, teachers should motivate students to acquire knowledge and enhance skills in writing by displaying them to similar sets of strategies. Student interactions and strategies, however, may vary depending on other factors.

Moreover, several studies have revealed that a student's level of proficiency is tied to the way they apply strategies. when dealing with the learning assignment, successful students apply a more diverse set of strategies compared to unsuccessful students (Bai, Hu, & Gu, 2014; Chen, 2011; Wong & Nunan, 2011; Griffith, 2003; Riazi, 2007). In line with previous research, successful students applied distinct strategies than unsuccessful students. Setting out there, the goal of this study was to look within the meta-strategies used by EFL students who were successfully successful in accomplishing writing assessments.

## METHOD

A qualitative text analysis research approach was used in this study to get an in-depth knowledge of how students make use of meta-strategies when accomplishing writing assessments. Participants in this study included seven MPBI (English Education Master's Program at Universitas Negeri Jakarta) students beginning in the second semester of the year of study in 2021 who took the English Proficiency for Teachers course and

studied writing at the C1 CEFR level through self-assessment on the Exam English website.

The writing self-assessments were created to assist students in improving their paragraph writing abilities. The design went over the structure of sentences and established common writing mistakes, paragraph components, and two-paragraph types of text. The researcher clearly stated the lessons and enabled the learners to do different tasks such as individual tasks from the examenglish.com, website in the teaching and learning process. The students were then assigned by the teacher throughout the assessments.

All students were required to write a self-reflection report at the completion of the course showing their overall reflection on the subject matter on four primary issues:

- self-evaluation of their comprehension of writing concepts and their implications over the course
- self-evaluation of the quality of their writing progress (based on all completed assignments)
- self-evaluation of their writing problems
- self-suggestions for the writing further development

The last reflection report was used as a tool in this study because it can gather the participants' mental processes when attempting to accomplish their learning objectives (i.e., learning English writing skills), allowing the researcher to investigate how they manage their learning process through their perceptions of learning progress, a shift in their attitudes toward learning, and a shift in their psychological needs. Table 1 displays the students' self-reflection meta-strategy sets adapted from Oxford (2017).

According to Zimmerman (2000), the frequency of meta-strategies used was then reported. However, the purpose of this research was to present a comprehensive overview of the meta-strategy applied to the writing self-assessment C1 level. Qualitative data analysis was employed in analyzing meta-strategy application during every assignment phase and was presented in an interpretive manner to learn more about how students applied meta-strategies.

**Table 1.** Meta-Strategy Sets

| Domain Strategies | Cognitive | Motivational | Social | Affective |
|---|---|---|---|---|
| Paying attention | - Emphasizing the importance of the focused material<br>- Focusing on the task at hand<br>- Focusing on the task goal<br>- Considering how to best apply one's own cognitive style when learning a language. | - Monitoring motivation levels<br>- Observing in activities or factors that arouse one's interest | - Observing at readers<br>- Getting to bigger social contexts | - considering feelings at the moment<br>- Considering the feeling when first started the task<br>- Considering at how feelings affect motivation |
| Planning | - Setting goals<br>- Planning how to complete/approach tasks<br>- Making study plans | - Setting up strategies to increase motivation | - Planning for implementing the knowledge gained in a different social context | - Planning how to overcome negative feelings |
| Organizing learning and obtaining resources | - Seeking resources that support learning | - Seeking resources that can increase their motivation | - Seeking assistance from others | - Finding ways to increase positive feelings |
| Monitoring and evaluating | - Evaluating one's own knowledge according to what one has learned.<br>- Considering the implications of the newly acquired knowledge. | - Monitoring motivation while performing a task. | - Evaluating the impact of relationships in terms of knowledge gained<br>- considering the application of social strategies | - Monitoring feelings after the task is completed.<br>- Considering how to prevent negative feelings<br>- Observing feelings that affect learning<br>- Observing how learning influences feelings |

## FINDINGS AND DISCUSSION

### 1. Students' Meta-strategies

Table 2 shows the percentages of meta-strategies applied in students' self-reflection reports.

**Table 2**. Meta-Strategies Applied In Students' Self-Reflection Reports

| Domain<br><br>Meta-strategy sets | Cognitive (%) | Affective (%) | Social (%) | Motivational (%) |
|---|---|---|---|---|
| Paying attention | 100 | 58 | 15 | 100 |
| Planning | 100 | 58 | 15 | 86 |
| Organizing learning and obtaining resources | 100 | 71 | 15 | 43 |
| Monitoring and evaluating | 100 | 43 | 43 | 43 |
| **Total** | **100** | **57,5** | **22** | **68** |

Table 2 shows that the students used all the meta-strategy sets. The cognitive domain is the most frequently used meta-strategy (100%), followed by the Motivational domain (68%), the affection domain (57.5%), and the social domain (22%). Students demonstrated fewer meta-strategies in the social domain, with only 15% demonstrating the ability to pay attention, plan, organize learning, and obtain resources.

### 2. The Use of Meta-strategies

The qualitative data stated a variety of meta-strategies employed by students in their LMS Self-reflection assignment writing. While writing a paragraph, they were more likely to emphasize their lack of background understanding and how it influenced their writing. Some students also expressed dissatisfaction with their own learning.

The students' self-reflection revealed that they were mostly concerned with their understanding. They would most likely assess their writing progress, styles of learning, and self-performance. (i.e., their writing products), as well as tips for completing the writing assignments. They also emphasized writing problems and applying their knowledge. Here are some student sentences that cover all domains and meta-strategies sets:

*"In finishing all tests, I used two methods of work as the test provided, too. For writing part 1 test 1, and part 1 test 3, I just read the pie chart and graphs and connected each word within the test. Meanwhile, in writing part 2 test 1 and writing part 2 test 2, I started doing the test by showing the first letters as an option given at the bottom of the test." (student 1, analyzing self learning-styles/method)*

*"I'm having trouble guessing the correct word while I'm working on this challenge. I guess this is the hardest part for me. Furthermore, I am unsure how to proceed with this topic because there is no clear description." (Student 2, problems in writing)*

*"My reflection is when I explain about a data in the form of a table or diagram, I can understand it easily. So, I can write down what I understand from the diagram."(student 3, identifying self-performance)*

*"Reflecting on my mistakes, some of possible solutions. I have to do more practice to read various topics and also writing a lot. By reading I can get a lot of new vocabulary that might help me to write good sentences and also construct good ideas by doing academic writing." (student 4, improving her way of doing writing assignments)*

*"These are the tricks that I used: 1. Click see all the paragraphs or text, 2. Read carefully and get the main point every paragraph, 3. Write the common word that is usually found (example: and, for, in, on, however, of, so, the, it, is, are, that, which), 4. Write the word that is found on the title (example: About transport in the European Union. Write the word one by one), 5. Write the word that you find on the chart (example: on chart I find word outside, inside, cars, buses. So, I write that), 6. Use your memory as much as you can." (student 5, tips/tricks in doing writing assignments)*

## FINDINGS & DISCUSSION

The present study found that when learning to write, students used various kinds of meta-strategies. Cognition was found to be a primarily focused meta-strategy that was applied across all stages of the task across all domains. Students learned how to address prior knowledge at the beginning of the course, observe new knowledge, recognize obstacles over the course, and at the completion of the course, assess their writing abilities (Student 2). Metacognitive strategies, according to Griffith's (2013) and Kunasaraphan's (2015) findings, are important in the 'core strategies' preferred by good students. They are also considered as a significant and essential tool that can assist students in accomplishing the goals they have for learning and, as a result, pursuing academic achievement (Oxford, 2017; Pipattarasakul & Singhasiri, 2017).

The students' frequent use of metacognitive strategies to support learning, such as Monitoring and evaluating writing, as well as managing and organizing educational materials, could indicate that they were goal-

oriented (Student 1). In the learning conditions that required them to write on an online platform with full Internet access, they seemed to look up online educational resources to resolve their overlapping writing issues. They may become successful writers by purposefully and continually observing how others employ language and internalizing it through their writing while meditating on these resources (Chang, 2012).

On top of that, they were more likely to succeed in school if they were aware of the benefits of social interaction in class Getting involved in a number of different peer review activities will provide some opportunities for students to help boost their error consciousness, allowing them to monitor and assess their learning progress intellectually (Student 4). Students are more inclined to observe themselves in cooperative learning environments when they get involved at a high level (Hijzen, Boekaerts, & Vedder; 2006). Active and beneficial classroom interaction can also aid in the development of their capacity to manage strategic choices and conduct (Winne, 2018; Oxford, 2017; Boekaerts & Cascallar 2006).

Feedback to increase students' writing might demonstrate that they are taking more responsibility for their educational experiences. The classroom setting designed by the teacher may have a significant impact on this aspect of learning (Student 3). Students' complete autonomy in writing subjects, as well as their complete involvement in feedback delivery and paired writing with teacher assistance, could provide them with some autonomy and motivate them to organize the material they are studying. (Chang, 2012). While writing, they have to keep on track of their own ideas for what knowledge to apply, how to arrange learning resources, as well as when to ask for help from others.

In addition, The learners emphasized their personal characteristics over the cognitive domain and external factors. They were discovered to pay attention to their effect and motivation throughout all task phases. In the affective domain, it was clear that more students used meta-affective strategies when completing the writing assessment. The decrease in affective aspects may imply that changes in student engagement occur. When students' writing skills improve to a certain level, they may abandon their initial strategies in favor of another (Zimmerman, 2000). According to the qualitative findings, some students expressed negative emotions as well as uncertainties about their learning process at the beginning of the course. This could be due to previous learning experiences that caused them to avoid potentially unfavorable learning outcomes in order to keep their values of well-being (Boekaerts & Cascallar 2006). They can grow their independent control of understanding and become more aware of strategies for facilitating their duties if the lessons are provided in a stimulating educational setting. As a result, they may shift their focus from focusing on their well-being pathway to effectively mediating with other factors in order to place themselves on a growth pathway toward achieving

their learning goal (Boekaerts & Cascallar 2006).

## CONCLUSION

This study explored meta-strategies described in students' self-reflection reports in a paragraph writing course to look into students' ability to control their writing learning. The findings of the study showed that the students were strategic learners. They showed themselves to be goal-oriented, and they were more inclined to prioritize not just a course-related goal, yet also an objective to improve their language learning abilities. Their tendencies for autonomous learning come to be strongly fostered by the classroom setting, in which they had to engage in cooperative learning while also being granted some learning autonomy.

Regardless of the oblique introduction of meta-strategies in-class activities, students could be said to have gained and developed self-control in the course of their studies. Comprehensive instruction of meta-strategies in writing is suggested for better outcomes. Tuckman and Kennedy (2011) noticed that with regard to knowledge retention and GPA, university students who utilized a learning methods course focused on motivation and cognitive elements for a whole semester surpassed those who took a non-strategic course. Using similar courses for university students could yield comparable results.

Despite the reality that this study was based entirely on information gathered from students' self-reflection reports, it may offer some insight into promoting students' autonomy throughout the writing skills learning process. However, a long-term study examining the impact of meta-strategy teaching intervention in a cooperative learning environment would be helpful to provide deeper findings on students' writing regulation. Interviews with semi-structured questions and stimulated recall interviews, for example, can be used to collect more diverse data. Furthermore, Data collected from various groups of students at various universities may provide in-depth knowledge of university students' autonomy in writing.

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