

Exploring the application of the metacognitive components on the development of the English writing process

Explorando la aplicación de los componentes metacognitivos
en el desarrollo del proceso de escritura en inglés.

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<https://doi.org/10.58995/lb.redlic.34.238>

1. INTRODUCTION

Writing in English as a Foreign Language (EFL) is one of the most challenging language skills because it aids learners in a deeper comprehension of concepts and ideas, making them applicable across diverse social scenarios on a global scale. In Ecuador, the National Curriculum considers writing as one of the threads of the 4Cs framework (culture, cognition, content, and communication), being imperative for achieving English learning objectives (Ministerio de Educación [MINEDUC], 2016). In consequence, for ninth-grade students, the Ministry established that it is mandatory to attain the A1 level of proficiency in English writing.

Unfortunately, the researcher observed a low level of English writing proficiency during his teaching practicum, facing challenges to effectively apply the writing process. Similar findings were noted in previous studies, indicating that at the high school level, students often fail in writing tasks due to a limited ability to express their ideas fluently, and insufficient training in the writing process (Cer, 2019; Ramadhanti & Permata, 2021; Teng et al., 2022).

As a result, this study presented metacognition as a strategy that has a certain influence on students' skills in English writing. The literature emphasized the positive impact of metacognition on English language learners' writing proficiency (Ramadhanti & Permata, 2021; Teng et al., 2022; Alamri, 2018) From this perspective, advocating for educators to furnish metacognitive tools presents a significant opportunity for students to take charge of the writing process, thereby improving their writing abilities (Al-zubeiry, 2019).

This study holds significance for the development of English teaching within the Ecuadorian context for many reasons. First, these findings pretend to inform educators about how to diversify instruction by including metacognitive writing components, enabling early intervention to address challenges faced by students in the writing process. Secondly, the presented findings and results can serve as a theoretical foundation and background for future research on metacognitive components in the writing process, facilitating the development of more in-depth studies in this area.

Despite previous research emphasizing the significance of metacognition in EFL academic writing, there was still room for further research. It was optimal to involve a larger group of students, consider perspectives from both students, and explore the use of metacognitive components, during, and after writing tasks. Based on these antecedents, the main objective of this research was to relate the metacognitive components that the teacher uses to improve the student's English writing process among students of superior basic education.

2. THEORETICAL FRAMEWORK

Metacognition

Metacognition refers to knowledge and awareness of the learning process, particularly perception. Nur (2017) mentions that "Cognition concerns with perceiving, remembering, recognizing and comprehending any concept or action; on the other hand, metacognition is dealing with thinking about how a concept has been learned and comprehended" (p. 13). This theory states that metacognition is the understanding of one's own learning, memory, and problem-solving processes, as well as the awareness of one's own learning strengths and weaknesses (Adi, 2023).

Metacognitive Components

Metacognition has two components: metacognitive knowledge and metacognitive regulation (Flavell, 1979). The first is also known as metacognitive awareness, which is constituted of declarative knowledge, task knowledge, procedural knowledge, and conditional knowledge (Paris et al., 1984, as cited in Teng et al., 2022). The second component involves regulation of cognition and it includes planning, monitoring (or regulating), and evaluation (Schraw, 1998)

Metacognitive Knowledge

Metacognitive knowledge holds significant importance since learners and educators comprehend how to control the learning process by employing various strategies that effectively fulfill the requirements of a defined task. In the words of Mohammad et al. (2018) "Metacognitive knowledge involves an awareness of one's knowledge about cognitive states and activities, and affective states, and control over this knowledge in order to achieve a specific goal" (p. 4). Therefore, students

who possess metacognitive knowledge are better able to think at various levels. For example, metacognitive knowledge skills can differentiate between concepts they have mastered and ones they must study further. In contrast, students lacking these skills can confuse their ability to recognize vocabulary words with mastery of the material (Stanton et al., 2015)

Declarative Knowledge

Declarative knowledge refers to knowledge about facts, concepts, and principles. It is the knowledge of what is true, what the relationships are, and what the world is like (Naseer, 2023). Mohammad et al. (2018) state that “Declarative knowledge involves knowledge of “what” one knows about cognitive states and activities states and activities involve knowledge of the world, understanding of one’s knowledge and capabilities and knowledge of strategy” (p. 4). Consequently, declarative knowledge forms the basis for understanding concepts, principles, and facts. It is the type of knowledge that can be easily shared and communicated, making it a vital tool for educators and learners alike (Bril, 2023).

Procedural Knowledge

Procedural knowledge is the comprehension of declarative knowledge, including the application of methods, modes of expression, and worldviews. Moreover, Cer (2019) mentions that “Procedural knowledge, which denotes the methodological knowledge related to how the individual will compose the writing plan, draft, revise, and organize” (p. 3). Consequently, proficient learners possess a greater level of automatic, precise, and practical procedural knowledge compared to less skilled learners. In this regard, it is the knowledge that the individual generates as a result of his experiences and his reflections on these experiences (Saks et al., 2021).

Conditional Knowledge

Conditional knowledge describes the learning methods related to when and how the learners are engaged in the writing process. In addition, Teng and Zhang (2021) describe conditional knowledge as an “effective selection of strategies and allocation of resources to facilitate learning” (p. 4). Based on this author conditional knowledge helps students to discern when and why to use specific strategies for a

relevant task. As a result, without conditional knowledge, a student cannot employ the appropriate strategies to accomplish the objectives.

Metacognitive Regulation

Metacognitive regulation involves the actions that learners take to manage their learning, including the monitoring and control of their cognitive processes. According to Yanqun (2019) “Metacognitive regulation involves planning to maximize the resources in a certain context before performing a task, monitoring, regulating to optimize the performance during the task, and evaluating and reflecting the cognitive process after the performance” (p. 29). Furthermore, metacognitive regulation includes planning, monitoring, and evaluation and could be considered as “self-management” of cognition involving reflective “self-appraisal” which supports awareness (Mitsea & Drigas, 2019).

Planning

In order to influence their outcomes, students create learning plans using best practices, giving them the opportunity to create personalized strategies suited to their needs. Moreover, Karim (2019) asserts that “Planning enables the language learners to prepare their learning for a goal of having a better result in their learning” (p. 28). This process empowers learners to effectively and systematically prepare and organize the essential tools required for a successful and productive approach to their writing tasks.

Monitoring

Monitoring supports learners in examining their individual learning styles and promotes self-awareness to enhance their best learning. Sulaiman et al. (2021) state that “Monitoring the pupil’s progress towards the goals, so as to evaluate the method that will enable the achievement of the learning goal and finally, self-reflect the entire learning process” (p. 76). As a result, this approach enables learners to assess their advancement throughout the writing process and identify their strengths and areas for improvement.

Evaluating

Evaluation typically occurs once the writing process concludes. This phase prompts learners to assess the effectiveness of their learning strategies and identify their areas of proficiency and areas for improvement. Additionally, Aripin and Hanim (2021) describe evaluating as a stage where “ESL writers will repeatedly proofread the text to recognize grammatical mistakes and inappropriate use of phrases or words. After scrutinizing the text several times, writers will reconsider to see if there are any changes or amendments needed” (p. 4). In consequence, learners examine their learning outcomes, including vocabulary, grammar, accuracy, and the cognitive strategies employed to reflect on their cognitive process after the task.

Benefits of Metacognition in ESL Writing

Additionally, enhancing students' metacognition can contribute to their increased independence in language learning, particularly in the area of writing. Besides, self-regulation skills such as metacognitive strategies for self-planning, self-monitoring and self-assessing, can develop self-efficacy for writing improvement. In this regard, based on these strategies, writers can construct feedback on the quality of their writing to make corrections and improve their compositions (Takarroucht, 2022). According to the aforementioned, by instructing students on how to consciously regulate their writing processes, we are equipping them with metacognitive thinking skills. In consequence, learners are able to write more effectively because they have more conscious control over their writing.

Metacognition and English Writing Skills

The ability to effectively plan, monitor, and evaluate writing activities is a result of L2 students' metacognition, which enables students to actively manage their language learning process. Kyestiati (2020) points out that “Knowing how their students understand their writing process will guide the teachers to better facilitate the students and hopefully will increase the student's awareness and writing performance” (p. 110). This means that students can make plans, keep track of their progress, and assess their own writing. By doing so, they can become more

thoughtful and purposeful in their writing, leading to a better understanding of their own writing abilities and improvements.

In summary, the use of metacognition and its strategies and components has a significant impact on the development of English writing skills. Therefore, it is crucial to understand the core elements of writing skills in the language being learned to fully comprehend the specific areas that will be enhanced through this teaching approach.

English Writing

Writing, among the other English language skills (listening, speaking, and reading), is regarded as one of the most crucial language abilities. It involves using written symbols to represent sounds, syllables, or words in a language (Chandra et al., 2018). Additionally, Selvaraj and Aziz (2019) argue that writing is a cognitive activity that requires the brain to process thoughts and ideas. Students must use their imagination and creativity to translate their ideas into words in order to effectively convey their thoughts in writing. This view was supported by Akhtar et al. (2019) who established that writing is a complex and significant skill that encompasses generating and organizing ideas, expressing knowledge, and practicing various subjects. Finally, according to Srinivas (2017), writing requires mastery over different levels of language, such as morphology, syntax, semantics, pragmatics, and discourse.

English Writing Process

Writing is not a single, isolated task; rather, it is a continuous process of creative expression (Oshima & Hogue, 2007). Besides, Novia and Saptarina (2020) affirm that “Process writing focuses more on a learner-centered approach and the fundamental stages of writing: prewriting, drafting, revising, editing, and publishing” (p. 332). As a result, (Williams (2003) as cited in Abas and Abd (2018) express that the writing process has certain influential states such as planning, drafting, and revising that is repeatedly changed as students revise drafts, plan how to edit their work and so on.

Prewriting

Before starting to write, a writer goes through a prewriting stage which involves three main activities: thinking, planning, and preparing. This stage allows the writer to gather ideas and organize their thoughts (Magdahalena, 2016). Furthermore, Mogahed (2013) emphasizes that “learners who are encouraged to engage in an array of prewriting experiences prove greater writing achievement than those enjoined to get to work on their writing without this kind of preparation” (p. 60). In this sense, students who are encouraged to participate in various prewriting activities tend to achieve better results in their writing compared to those who dive straight into writing without any preparation (Zakhareuski, 2012)

Drafting

Azariadis (2018) claims that drafting is the process of writing an initial version of your ideas. It allows you to assess the logic of your thoughts, and the clarity of your argument, and identify areas where you need more information or evidence. Likewise, Abas and Abd (2018) mention that “At the drafting stage, organizing and planning the time and focusing on related ideas are influential factors for an effective drafting process” (p. 1818). In this sense, Dewi (2021) considers when drafting, students should pay attention to word choice, grammar, and the development of complex ideas in a general format that matches their intention.

Revising

When you revise, you carefully review your ideas to make improvements. This involves adding, removing, rearranging, or modifying information in order to enhance the clarity, accuracy, interest, or persuasiveness of your ideas (Schmitz, 2012). Typically, according to Reis (2008) students receive feedback from their teachers a few days after completing a writing task. During this feedback process, errors are pointed out and corrected, and suggestions for improvements are given. Moreover, students have the chance to work in pairs or groups with different classmates to edit and provide feedback on each other's writing.

Editing

According to Ogbi (2015) editing involves making corrections and adjustments to improve grammar, vocabulary, spelling, punctuation, and other types of errors. It

also includes proofreading to ensure coherence and eliminate mistakes. Likewise, Abas and Abd (2018) state that “All of the participants made the same effort to check their work for correct use of grammar, punctuation, and spelling by rereading carefully, word by word, what they had written. When they spotted a mistake, they changed it immediately” (p. 17). In this sense, Puji (2013) considers that after producing multiple drafts and receiving feedback from peers and teachers, editing is done to check and correct minor mistakes in grammar, vocabulary, and mechanics. The primary objective is to refine the writing without altering the main ideas. Once the editing is completed, students submit their final drafts to teachers for assessment.

Publishing

This is the final step in the writing process in which students share their written pieces either by reading them aloud to their classmates or by displaying them on a bulletin board or another accessible location for both students and teachers to read (Rebhi & Burogohain, 2019). Furthermore, Maysuroh et al. (2017) claim that “after they have revised their own writing, they can publish them. In this process, the lecturer asked the students to share their writing to their classmates and check it collaboratively with the lecturer” (p. 5). Once the students submit their writing to the teacher for sharing, the teacher's role extends beyond simply identifying mistakes and assigning grades. At this stage, the teacher assumes the role of a reader and evaluator, providing clear feedback to help the students understand their errors (Aziz, 2015).

Writing Importance in the 21st Century

Younger generation, more than anyone else, understands the essence of 21st-century writing. Their daily activities involve constant writing, such as sending text messages to friends and family (Senn, 2011). In this sense, in order to develop 21st-century skills, it is essential to shift the mindset of both teachers and students from the traditional model of learning to an innovative approach. Therefore, if writing instructors can effectively utilize these life writing abilities, it could lead to greater possibilities for offering more meaningful experiences to the students (Ghofur et al., 2019).

Likewise, students have the opportunity to improve their English skills by engaging in activities such as searching for information on the school website, writing resumes, and using online learning programs. It is crucial to incorporate instructional activities that not only allow for the practice of digital skills but also enhance the problem-solving process (Ugbe, 2020). In brief, students today will have to communicate using increasingly complex technology. They need to recognize that the same processes involved in paper-and-pencil writing apply to writing using new technology.

3. MATERIALS AND METHODS

Research Design

This study was developed by considering the mixed approach, which involved gathering and analyzing both quantitative and qualitative data to address the research questions outlined for this research (Fernández & Baptista, 2014). In this regard, it was quantitative since numerical and statistical data were collected to measure and analyze the metacognitive components through the survey technique. For qualitative data, descriptions and observation were gathered from the observation techniques, in order to complement the quantitative findings.

Equally important, the descriptive-exploratory research type was employed. In this sense, this research approach allowed the researcher to discover and at the same time to characterize the different metacognitive components that teachers and students applied in order to improve their writing process.

Population and Sample

The population for this study consisted of 180 ninth-grade students at a religious educational institution in Loja city. This research focused on a representative sample of 63 students, which allowed the researcher to make inferences and generalize the results about the population with a minimum margin of error (Arias, 2012). Moreover, the criterion of random sampling was employed (Hadi et al., 2023). Additionally, five teachers who teach the English subject in the ninth-grade, and belong to the English area participated in this study.

Data Collection Sources and Techniques

First of all, the survey technique was applied through a questionnaire to identify the metacognitive components that students used to develop their writing process (Hadi et al., 2023). This instrument contained ten questions and its design followed the Likert scale (Joshi et al., 2015). Second, to support the quantitative data collected from the survey to the students, another survey was employed for the teachers. Similarly, this instrument consisted of ten questions, following the Likert scale. Likewise, it was focused on the metacognitive components that students applied in order to enhance their writing skills.

Finally, the observation technique was used to gather data about how the metacognitive components were applied by the students in the writing process (Fernández & Baptista, 2014). In this regard, five classes related to writing skills in ninth-grade students' classrooms were observed and by employing this technique, the researcher collected significant qualitative data that complemented the previous quantitative analysis. In addition, the information gathered was connected through an analysis of the information obtained from the surveys. This data played an important role in drawing conclusive findings for this study.

Data processing

Based on the context of this study, the researcher used descriptive statistics to process and analyze the quantitative data. The data were visually represented in tables and graphs using the Excel software, enabling a comprehensive examination of the impact of the metacognitive components in the improvement of the writing process of the students. Regarding the qualitative data, they were systematically categorized and analyzed taking into consideration the indicators, which provided support for the findings regarding the influence of metacognitive components on students' writing process.

Data Analysis

For this research, the analysis of quantitative data involved frequencies and percentages, which were presented in tables to provide a clear visualization of the results. This visual representation facilitated a straightforward interpretation of the findings. Furthermore, the qualitative data played an important role in supporting

and substantiating the quantitative results. These qualitative insights provided additional analysis and context to enhance the understanding and interpretation of the overall research findings.

4. RESULTS

Objective: To relate the metacognitive components that the teacher uses to improve the student's English writing process among students of superior basic education.

Table 1

Data obtained from the survey applied to both teacher and students.

Statements	TA %	SA %	TNAND %	SNAND %	TD %	SD %
Metacognitive Components - Writing Process						
1 I use brainstorming or other strategies to generate many ideas (knowledge of cognition - prewriting).	66,7	46,0	33,3	41,3	0,0	12,7
2 I use mind mapping, free writing, or other strategies to develop my first drafts. (regulation of cognition - drafting)	0,0	33,3	66,7	49,2	33,3	17,5
3 I ask myself: Does my writing clearly communicate my main ideas? Is the structure correct? Are my ideas well-supported? (knowledge of cognition - editing)	66,7	61,9	0,0	28,6	33,3	9,5
4 I use revising techniques such as peer review to correct mistakes and improve my writing. (regulation of cognition - revising)	33,3	47,6	66,7	41,3	0,0	11,1
5 I share the final version of my writing with my teacher and classmates, or I use other strategies to check it and	33,3	52,4	66,7	36,5	0,0	11,1

receive feedback. (regulation of cognition - publishing)

Note. TA=Teachers agree, SA=Students agree, TNAND=Teachers neither agree nor disagree, SNAND=Students neither agree nor disagree, TD=Teachers disagree, SD=Students disagree.

Table 5 presents an analysis based on perspective from both students and teachers. It describes the proportions of students who applied metacognitive components (specifically, knowledge of cognition and regulation of cognition) during various stages of the writing process (pre-writing, drafting, editing, revising, publishing). The identified components are systematically grouped, and their corresponding evaluations align with the Likert scale (agree, neither agree nor disagree, and disagree). It facilitates a clear and effective contrast of the findings.

In response to the first question, 46% of students agreed that they apply brainstorming and other strategies to effectively generate ideas and enhance the prewriting stage. Additionally, 66,8% of surveyed teachers supported these findings, noting that most students rely on strategies during the prewriting stage to achieve a well-organized writing task. In this perspective, it was evidenced, through the researcher's observations, that brainstorming and free-writing were the most common strategies used by students. These strategies aimed students to record ideas, select relevant ones, and establish connections between them, as result, students effectively organized their thoughts before drafting. In contrast, in the surveys a similar percentage of students 41.2% neither agree nor disagree that they incorporate these strategies during prewriting. These findings were further supported by the subsequent observations, indicating that a significant number of students wrote spontaneous ideas without using any strategies. It resulted in disorganized and incoherent ideas during the writing presentations. In consequence, the students faced difficulties to effectively understand the main and secondary ideas that students intended to convey.

Findings from the second question about drafting indicated that 49.2% of students maintained a neutral position of neither agreed nor disagreed on employing mapping, free writing, or other strategies for first draft development.

Additionally, teacher surveys, with 66.7%, reflected a similar view, suggesting that the majority of students did not use strategies for developing their initial drafts. In this regard, researcher's observations noted that some students skipped drafting, instead they directly redacted the final version of their writing, resulting in poorly organized and unclear texts with many spelling mistakes. On the other hand, a minor percentage of students (33.3%) agreed that they applied strategies to successfully construct their first drafts. In this perspective, during the observation it was evident that most students used the free writing strategy, by writing and connecting their ideas in their draft notebook. Consequently, this particular group of students produced writings with a clear and well-organized structure, demonstrating a strong connection between the written ideas and the topic of the writing.

According to the third question about the editing stage, a significant 61.9% of the students agreed that they ask themselves reflective questions to identify and correct mistakes in the writing tasks. In this regard, 66.7% of surveyed teachers supported this statement, by indicating that most students formulated questions to review their ideas, correct mistakes, and refine their writing. In this context, previous findings emphasize that a majority of students recognize the importance of self-questioning for improving coherence and reducing mistakes in grammar, vocabulary, spelling, and punctuation, enhancing overall written work quality. Meanwhile, the second-highest inclination with 28.6% of the students, neither agreed nor disagreed with the statement. These findings suggest that a small proportion of the sample does not formulate questions to identify possible improvements in their writing. Interestingly, this discovery was substantiated during the observations, where it was noted that a small group of students presented their work without applying any editing strategy. Consequently, this approach resulted in numerous grammatical, vocabulary, and mechanical errors in their writing.

Regarding the fourth question about the revising stage, a notable 47.2% of the students agreed that they used peer-reviewing and other revision strategies to correct mistakes and enhance their writing. This perspective was reinforced by the researcher's observations, which show that proofreading and peer-reviewing were

the most frequent strategies employed by the students. As a result, based on feedback from these strategies, students made additions, removals, rearrangements, or modifications to the content, aiming to improve the clarity, accuracy, coherence, and persuasiveness of their writing. On the other hand, the second most common student response was the option "neither agree nor disagree," with 41.3%. It suggests that a meaningful group of students did not use revision strategies to have feedback and improve their pieces of writing. This perspective was validated by 66.7% of surveyed teachers, who indicated that a considerable group of students did not apply strategies in the revising stage. In this regard, during observations it was identified that students presented their work directly without employing any strategy to revise their writing. Consequently, the quality of their writing was affected by various grammatical and logical errors, making it challenging for the audience to understand the primary and secondary ideas conveyed in the students' writing.

Finally, the fifth question regarding the publishing stage revealed that a noteworthy 52.4% of students agreed that they share the final version of their writing to the teacher and use other strategies to publish their writing and obtain feedback. In this context, during the observations it was noted that most students shared their writing with the teacher before presenting it to the class. In addition, there was a group of students who compared the format of their writing with the format of other classmates. As a result, they were able to identify and rectify structural errors, leading to refining and improving the overall quality of the writing. Looking at it from another angle, the "neither agree nor disagree" option was the second most common response among students with 38.1%. In this regard, nearly 66.7% of surveyed teachers confirmed this trend, indicating that some students are not engaged in applying strategies to obtain feedback during the publishing stage. It was corroborated during observations, where a significant number of students directly presented their pieces of writing by reading them in front of the class, without employing any strategy to refine their work. This resulted in students failing to meet the main requirements of the task during the activity.

5. DISCUSSION

The present study was designed with the main purpose of determining: What are the metacognitive components that teachers and students foster in the development of the English writing process? On this question, the majority of the surveyed students 46% and surveyed teachers 66,7% agreed that they apply brainstorming or other strategies to generate ideas before writing. It was verified during the researcher's observations, as students employed brainstorming and free-writing to generate and organize their ideas in the prewriting stage. In accordance with these findings, Al-Inbari et al. (2023) affirms that brainstorming is an important strategy in the prewriting stage of the writing process, as it enhances learners' ability to plan and organize their ideas for writing tasks.

Furthermore, most of the students 49,2% and teachers 66,7% neither agreed nor disagreed that students use mind mapping or other strategies to develop their first draft. It was corroborated during researcher's observations evidencing that students skipped the drafting stage, and directly wrote the final version of their writing. In addition, similar results were found by Bryce et al. (2023) who indicates that the absence of mind mapping practice among students negatively impacts the cohesion and expression of ideas during the drafting stage.

Likewise, the majority of both surveyed students 61,9% and surveyed teachers 66,7% agreed that during the editing stage, students ask themselves questions such as: "Does my writing clearly communicate my main ideas? Is the structure correct? Are my ideas well-supported? Although these findings weren't confirmed by the researcher's observations because it was evidenced that the majority of students directly wrote and they did not check their pieces of writing. These findings align with Zulkifli's (2017) perspective, who found that during the editing stage, students can effectively monitor their written work through self-questioning, allowing them to independently correct their drafts.

In addition, nearly half of the students 47,6% agreed that they use peer-reviewing and other strategies to correct mistakes and improve their writing. In contrast, most of the teachers 66,7% answered that they neither agreed nor disagreed with this

statement because, during observations, it was evidenced that students presented their writing without employing any strategy to revise their composition. These findings were substantiated by Philippakos (2017), who suggests that students struggle with revision because they do not know how to evaluate their own writing as readers. By applying peer-reviewing students can receive feedback to improve their ideas and their work.

Lastly, most of the students 52,4% agreed that they share the final version of their writing with their teacher and used other strategies to check it and receive feedback. However, most of the teachers 66,7% neither agreed nor disagreed with this statement. The teachers' opinion was confirmed during the researcher's observations, indicating that most students directly presented their writing without sharing their final work with the teacher. In alignment with these previous findings Kamal & Faraj (2015), points out that if teachers do not provide feedback in the publishing stage, there will be a missed opportunity to identify student mistakes. If teachers do not identify students' problems, students won't receive the necessary guidance to create a good piece of writing.

6. CONCLUSIONS

Bearing on mind the analysis of results and the research objectives, it can be stated that both students and teachers perceive that the students applied brainstorming to generate ideas before writing, and self-questioning to improve the editing stage of their writing. Particularly, the use of brainstorming improved the prewriting stage as it developed learners' ability to plan and organize ideas for writing tasks. Similarly, by asking themselves reflective questions related with the clarity, structure and foundation of ideas, students take active control of their writing. It allows them to identify errors in their writings and correct them.

It was evident that both students and teachers recognize that students find obstacles in applying mind mapping to develop their first draft. Observations indicated that students skipped the drafting stage, and directly wrote the final version of their writing. For this reason, some students faced challenges in

expressing their ideas and creating cohesive sentences, resulting in poorly organized and incoherent texts.

Finally, while students considered that they applied peer-reviewing and shared the final version of their writing with the teacher. Teachers perceive that students struggle to effectively apply this strategy and observations revealed that students often forget to apply these strategies. In this sense, it was found that the lack of peer-reviewing affects the revising stage because learners do not know how to evaluate their writing. Similarly, when students do not share the final version of their writing with the teacher, they do not receive the necessary feedback because the teacher was not able to identify the students' problems.

This study revealed several limitations. Due to an exclusive all-male student population, the findings gathered are only applicable to the male population. Similarly, findings from a small sample size of 63 students may not be applicable to a wider population. Lastly, the limited observation time of five writing classes suggested that more accurate and realistic results could be obtained by increasing the experimentation time. Other studies are necessary to further investigate the impact of the application of the metacognitive components in the development of the English writing skills, using other techniques such as, interviewing both teacher and students and the analysis of writing samples.

7. AUTHORS CONTRIBUTION

- ~ JP: Theoretical Framework, Results, Discussion and Conclusions
- ~ MC: Introduction, Methodology, and Instruments Design, Revision of the whole chapter

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