Using Atlas-ti for Analysing Metacognitive Writing Strategies in the Writing Process of ESL Writers: A Study across Gender

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Abstract

Developing metacognitive writing strategies is essential for ESL writers in learning writing as it regulates their learning and train them on how to practice writing effectively. Writing process has been known as a challenging production skill that requires learners to be competent in the use of writing mechanics such as vocabulary, syntax, grammar, sentence structure, strategies and lexical. Hence, in learning writing, ESL writers should be approached by suitable writing strategies that can be used as a writing regulator to guide the writers to compose productively. Metacognitive writing strategies is one of the writing strategies that involves three main components which are planning, monitoring, and evaluating. These components are believed to enhance the writers’ writing skill as well as to boost their writing performance. Therefore, this qualitative study was conducted to explore metacognitive writing strategies besides describing how female and male writers used this strategy in their writing process. Two students from one public university in Johor are grouped according to their gender and semi-structured interview was conducted as the main method in collecting the data. The gathered data were then coded and analysed using Atlas-ti (Version 8.0). Findings of the study revealed that both male and female writers used different ways when planning, monitoring, and evaluating their writing process. Results of this study have given a great impact on teaching and learning of ESL academic writing.

Keywords: ESL writing, writing process, Metacognitive writing strategies, semi-structured interview, Atlas-ti, coding, ESL writers, Gender

Introduction

Background of the Study

In learning writing, writers should be concerned on writing mechanics and writing techniques so that an organized text can be produced. Writing is defined as a systematic skill that allows learners to inculcate their knowledge including vocabulary, grammar, and structure (Azizi et al., 2017). While writing, the writers are expected to put vocabulary, syntax,
coherent and cohesive, grammar and sentence structure in mind besides being critical in thinking so that the ideas and thoughts can be conveyed successfully. This shows that writing is a challenging task to most writers as it requires them to be organized, creative and critical. Hence, a practical strategy should be applied by the writers so that their writing process is regulated accordingly. Chien (2012) claimed that writers who use writing strategies in their writing process will excel in their writing performance.

In ESL writing, Mu (2005) grouped writing strategies in ESL writing into five types which are rhetoric strategies, cognitive strategies, metacognitive writing strategies, communicative strategies, and social/affective strategies. Among all the writing strategies, metacognitive writing strategies have been claimed to be frequently used by most ESL learners during their writing process (Raoofi et al., 2014). These strategies help learners to reach a higher level of writing content (Pitenoee et al., 2017); reach desirable goals and have better control over the behaviour and their learning, allow the learners to be more confident and efficient in their writing (Rahmat and Ismail, 2014), have a proper guideline to regulate materials that they have learned (Azizi et al., 2017).

There are three major phases in metacognitive writing strategies namely planning, monitoring, and evaluating. These three stages of writing process are believed to guide and control the writers during the writing process. Hence, the study aims to explore metacognitive writing strategies on how planning, monitoring and evaluating are used by ESL writers across genders.

Problem Statement

In the writing process, metacognitive writing strategies are expected to be applied by the writers as a writing regulator that guides them to compose. Planning, monitoring, and evaluating are used as guidelines to help them control their writing. By applying this writing strategies, the writers could produce an organized text or essay.

However, the problem occurs when ESL writers are clueless about the sources of writing anxiety and practical ways on how to use metacognitive writing strategies in their writing process. They do not realize the significance of using strategies in their writing due to lack of awareness and exposure about using these strategies in their writing. Saedpanah and Mahmoodi (2020) and Aluemalai and Maniam (2020) also claimed that although metacognitive writing strategies was conducted in the writing process, the writers were still anxious to write due to limited exposure on how to use these writing strategies. In fact, ESL writers also have problems to use the strategies as they have not been properly introduced by their teachers. Hence, this has caused them to have disorganized text which affected their final writing text in a negative way.

Hence, the qualitative study is conducted to explore metacognitive writing strategies; planning, monitoring, and evaluating used by ESL writers in their writing process on the perspective of gender by conducting semi-structured interview. Specifically, this study is done to answer the following questions;

a. How does gender influence planning stage in the writing process of the male and female writer?

b. How does gender influence monitoring stage in the writing process of the male and female writer?

c. How does gender influence evaluating stage in the writing process of the male and female writer?
Literature Review

*ESL Writing*

Writing is a crucial skill as it measures writers’ writing and cognitive achievement. Writing is an important skill to be mastered because writers’ language attainment is measured by their proficiency in writing (Nnamani and Akabogu, 2020). Rahmat et al. (2018) defined writing as a social-cognitive process as the writers should ensure that the written ideas are conveyed and successfully understood by the readers. Guneyli (2016) described writing as a process where the ideas are transferred by involving writers’ emotions, opinions, thoughts, and past experiences based on language rules and letters. In other words, writing can be perceived as a process of connecting the writers to the readers, besides transferring ideas, information, and thoughts that the writers plan in their mind. Instead of transferring ideas into a written text, writers are also capable to share feelings and convince readers through their writing (Aluemailai and Maniam, 2020).

![Figure 2.1: Definition of Writing Skill in the Study](image)

ESL writing requires ESL learners to communicate their ideas through writing using their second language. As such, this process becomes complicated when the language proficiency of the writers is taken into consideration. Al-Sawalha et al. (2012) also stated that the writing process in the second language is far complicated than writing in one’s native language due to its complexity to acquire that skill. The process demands ESL writers to learn and apply some specific processes and strategies to produce good text. The most important thing is, the text should be effectively delivered to the readers.

*ESL Writers*

In ESL writing, writers can be categorized into skilled writers and unskilled writers. Skilled writers are those who manage to control and direct the entire writing process, while unskilled writers usually do the opposite. Raoofi et al. (2014) found that skilled writers manage to present the ideas in an organized way and then able to produce a review upon their final composition. This is because writers’ writing skill is determined by their writing proficiency or their language use.
Additionally, good writers who excel at writing can use writing strategies in their writing process compared to less-skilled writers. Maharani et al. (2018) in their study found that good writers used writing strategies often compared to less-skilled writers. Writers who apply strategies are said to perform better than those who write without any guideline as the strategies will closely guide them until the end of the writing process. Azizi et al. (2017) revealed that students who have greater awareness concerning the strategies they use in the writing process are considered as successful writers. Meanwhile, writers’ attitudes and behaviour also play an imperative role in determining writing competency. Learners’ attitudes are described as a collection of feelings pertaining to language use. These feelings can be good, bad and neutral and might develop or hinder the learning process. According to Graham and Fan (2007), learners’ attitudes towards writing affect their writing achievement.

**Writing Strategies**

In ESL writing, Mu (2005) pioneered a taxonomy of ESL writing strategies which turned out to be a major reference for many researchers. According to Mu' (2005), there are five types of writing strategies identified and derived from ESL writing theories. The five writing strategies are rhetorical strategies, metacognitive strategies, cognitive strategies, communicative strategies, and social/affective strategies. These strategies have been explored by many researchers and they have come out with different findings on the composing strategies.

**Table 2.3: Mu’s (2005) Taxonomy of ESL Writing Strategies**

<table>
<thead>
<tr>
<th>Writing strategies</th>
<th>Sub-strategies</th>
<th>Speculation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetorical Strategies</strong></td>
<td>Organisation</td>
<td>Beginning/development/ending</td>
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<td></td>
<td>Use of L1</td>
<td>Translate generated idea into ESL</td>
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<td></td>
<td>Formatting/Modelling</td>
<td>Genre consideration</td>
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<td></td>
<td>Comparing</td>
<td>Different rhetorical conventions</td>
</tr>
<tr>
<td><strong>Metacognitive strategies</strong></td>
<td>Planning</td>
<td>Finding focus</td>
</tr>
<tr>
<td></td>
<td>Monitoring</td>
<td>Checking and identifying problems</td>
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<tr>
<td></td>
<td>Evaluating</td>
<td>Reconsidering written text, goals</td>
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</tbody>
</table>
Cognitive strategies | Generating ideas | Repeating, lead-in, inferencing, etc |
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</thead>
<tbody>
<tr>
<td>Revising</td>
<td>Making changes in plan, written text</td>
<td></td>
</tr>
<tr>
<td>Elaborating</td>
<td>Extending the content of the writing</td>
<td></td>
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<tr>
<td>Clarification</td>
<td>Disposing of confusions</td>
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<tr>
<td>Retrieval</td>
<td>Getting information from memory</td>
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<tr>
<td>Rehearsing</td>
<td>Trying out ideas or language</td>
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<tr>
<td>Summarising</td>
<td>Synthesising what have read</td>
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Communicative strategies | Avoidance | Avoiding some problems |
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<tbody>
<tr>
<td>Reduction</td>
<td>Giving up some difficulties</td>
<td></td>
</tr>
<tr>
<td>Sense of readers</td>
<td>Anticipating readers’ response</td>
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Social/affective strategies | Resourcing | Referring to libraries, dictionaries |
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<tbody>
<tr>
<td>Getting feedback</td>
<td>Getting support from professor/peers</td>
<td></td>
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<tr>
<td>Assigning goals</td>
<td>Dissolve the load of the task</td>
<td></td>
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<tr>
<td>Rest/deferral</td>
<td>Reducing anxiety</td>
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</tbody>
</table>

**Metacognitive Writing Strategies**

The strategies that are used by writers to control and regulate their writing process. There are three micro strategies that help writers to use metacognitive strategies. They are planning strategies, monitoring strategies and evaluating strategies. Planning strategies are conducted before writing either the writers write a draft on paper or they just draw the ideas in their mind. Planning strategies are essential as they function as a guideline that will drive the writers in the writing process. Metacognitive writing strategies help learners to reach a higher level of writing content (Pitenoe et al., 2017); reach desirable goals and have better control over the behaviour and their learning, allow the learners to be more confident and efficient in their writing (Rahmat and Ismail, 2014) have a proper guideline to regulate materials that they have learned (Azizi et al., 2017).

**Planning**

Planning is an essential part of the writing process and the major writing time is spent at this stage. According to Silin and Chan (2015), 70% of writing time should be spent at the planning stage. During the planning stage, writers are required to plan and recall their prior knowledge to construct the draft or outline. According to Bai et al (2014), planning is the most prominent strategy chosen by primary learners in Singapore than other strategies. At this initial stage, writers will talk about arrangement and preparation before they start writing.

**Monitoring**

Monitoring is known as a controller that regulates the transferring process. During the monitoring stage, writers will check and identify problems during while-writing process. This while-writing process allows writers to convert their thoughts and ideas into language. At this stage, the writers will also verify other aspects such as content, organization, grammar, and mechanics.

**Evaluating**

This final stage of metacognitive writing strategies guides writers to carefully proofread and revise their product or text. This stage usually takes place after the writing process is complete. Likewise, 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.

Past Studies

In Goctu’s (2017) study on metacognitive strategies in Academic writing, more than half of participants did not have metacognitive awareness although they used them in a writing process. The results revealed that most of the students used metacognitive strategies, but their strategies were largely incomplete due to lack of awareness. In addition, the researcher also found that metacognitive strategies had a positive cognitive, social and emotional impact on learners academic writing.

In another study on metacognitive awareness by Azizi et.al (2017), they found the relationship between learners’ writing performance, self-awareness and metacognitive strategies. The results also revealed that Iranian EFL students were lacked metacognitive strategies awareness when approaching writing and successful students used metacognitive strategies more than the other writing strategies. In addition, the researchers also claimed that there was a positive relationship between metacognitive writing strategies use and the learners’ writing performance. This proves that students who have self-awareness in the using of metacognitive writing strategies will successfully perform in their writing.

Methodology

Research Design

This qualitative study is conducted to explore how ESL male and female writers use planning, monitoring, and evaluating as components of metacognitive writing strategies in the writing process. The selected sample for this study is a male and a female writer from a public university who attended an English course called Integrated Language Skill III(Writing). Meanwhile, the instrument used for this study is semi-structured interview.

To meet the purpose of the study, a male writer and a female writer were selected to perform a writing test for an hour. The whole writing process was videotaped by the researcher. Before the test was conducted, the writers were briefed on the strategies to be applied in the writing process. The obtained video was later coded and analyzed using Atlas- ti (Version 8.0) to determine the application of three-stage of metacognitive writing strategies; planning, monitoring, and evaluating.

Semi-structured Interview

The present study employed semi-structured interviews to obtain information related to the subjects’ perception and thoughts on the writing process, and metacognitive writing strategies. It is believed that this interview helps to add on some important information that would elicit an understanding of the patterns of students’ attitudes towards the use of metacognitive writing strategies in their writing process.
Table 3.3: Coding Scheme for Metacognitive Writing Strategies

Table 3.3 presents main category, sub-categories, and codes for coding metacognitive writing strategies that the researcher deployed when analysing interview transcripts. The list of these categories and sub-categories were adapted and adopted from Kodituwakku (2013), Arifin (2017), and Arifin (2020).

Coding Using ATLAS-ti Software Version 8.0

ATLAS-ti has been verified as a Qualitative data analysis software. This software was designed by Thomas Muhr in 1989 to fit the purpose of managing a large amount of research data. In 1993, the first commercial version of ATLAS-ti was released. This software is a helpful and essential tool that helps researchers to facilitate their data analysis.

In this study, a software called ATLAS-ti was utilised as the main tool to analyse the data. In this regard, using Atlas-ti is for analysing qualitative data is a convenient way of getting the data systematically. Besides that, this software is valuable in terms of improving the analytical steps for validating which shows that the gathered and analysed data do not represent the researcher’s personal impressions.

Discussion of Findings

Introduction

This section presents the findings of the study based on the transcription gathered from semi-structured interview. The findings are discussed according to the three stages of metacognitive writing strategies used by both writers during an hour of the writing process.
4.2 Planning

Figure 4.2 above, shows the planning components used by a male and a female writer during the writing process. It is stated that the female writer applied five sub-strategies during her planning stage. At this stage, the five sub-strategies used by the female writer before she started her writing were (1) analysing how and what is to be written, (2) translating the ideas from L2 to L1, (3) drafting ideas for writing (4) rereading and be aware of the task assigned, (5) drafting ideas for writing. As compared to the male writer, there are only three methods used during planning stage namely (1) brainstorming to generate ideas, (2) drafting ideas for writing and (3) analysing how and what is to be written.

4.3 Monitoring

Based on figure 4.3, the female writer used three sub-strategies during her while-writing process, while the male writer applied two sub-strategies. The sub-strategies applied by the female writer during the composing process were (1) Reading/Rereading to occupy the demands of the assigned topic, (2) Translating ideas for writing, and (3) Revising to monitor and refine the paragraphs. On the other hand, the male writer only used two sub-strategies while composing the essay, and they are (1) Translating ideas for writing, and (2) Revising to monitor and refine the paragraphs.

4.4 Evaluating

Figure 4.4. Evaluating Components Used by a Male and Female Writer
The final stage in a writing process is called evaluating stage where writers will scrutinize, proofread, and revise their finishing product. At this stage, writers usually read the text several times to identify grammatical mistakes and inappropriate use of phrases or words. Based on figure 4.4 presented above, it shows that both female and male writers applied similar sub-strategies when evaluating their essays. It was found that, both writers used (1) **Revising**-making changes that altered meaning, (2) **Editing** or making minor and surface changes, and (3) **Evaluating**-Reading/Rereading and scanning the text.

### 4.5 Metacognitive Writing Strategies Used by ESL Writers in the Writing Process

![Figure 4.5. Metacognitive Writing Strategies Used by Male and Female Writer](image)

Based on figure 4.5, it can be summarized from the study that both ESL writers used metacognitive writing strategies in their writing process. However, from the findings, female writer used more sub-strategies during planning and monitoring stage, compared to the male writer. During the planning stage, female writer had more strategies used compared to male writer as it was reported that the female writer preferred to reread the assigned task properly and translate the ideas using both L1 and L2. Raoofi et al (2014) in their study revealed that all the participants are more focused on pre-writing activities as they are aware of their writing problems before they start writing. While writing, female writer was reported to apply rereading strategy when monitoring the essay writing compared to male writer who only preferred to translate the ideas and revise the text. However, both writers used similar sub-strategies during the final stage of the writing process.

**Discussion**

To recapitulate, from the analysis derived from the data of both genders, it was reported that both ESL writers applied some sub-strategies during their writing process. It can be said that both writers were aware of the strategies usage when planning, monitoring, and evaluating their essays. However, based on the finding gathered from the thematic analysis using Atlas-ti, the female writer applied more sub-strategies compared to the male writer. According to Maharani et al (2018), female writers used more strategies in the writing process compared to male writers. Mutar and Nimechisalem (2017) found a significant difference between female and male students in using writing strategy. They discovered that female students use writing strategies more than male students. During the writing process, it was found that
female writer used more strategies when planning for their writing. This can be concluded that the female writer has a better and proper planning before writing compared to the male writer. Arrastia et al (2016) reported that female writers seem to frequently use planning strategy in learning English. In addition, it was also stated that the female writer used more methods during the monitoring process compared to the male writer. Since monitoring is considered as a controller that guides the writer to compose wisely (Goctu, 2017), the female writer allocated more approaches to produce a good text. At the final stage of the writing process, it was found that both writers had used similar strategies during the evaluating stage. We can conclude that both writers were alike to apply similar methods after completing their writing process. According to Goctu (2017), At this stage, learners will reread and reconsider the product to see if there are any changes needed. Learners will get themselves familiar with peer and self-editing skills.

Conclusion
Summary of Findings
ESL writers, be it male writers or female writers use metacognitive writing strategies in their writing process. However, the use of subcategories in metacognitive writing strategies throughout the process is different across gender. It has been proven in the study that female writer applied more subcategories of metacognitive writing strategies in their writing process compared to male writers. From the planning stage until evaluating stage, female writer performed more strategies as compared to the male writer. Hence, this can be summarized that metacognitive writing strategies are practiced differently across gender. However, from the table derived from the writing process of ESL writers, planning, monitoring, and evaluating play its significant role to guide writers to produce a good text.

Contribution in Learning and Teaching Writing
In the study, significant causes of writing anxiety that ESL writers face through their writing attitudes while writing were explored and identified. Besides that, this study succeeded in providing insightful information about the writing strategies. Hence, the findings can be used for writing instruction, especially for writing teachers and lecturers to address any problems that occur during the writing process and consequently contribute to the improvement of writers’ English writing quality. In addition, the findings could provide insightful information and details of planning, monitoring, and evaluating and how to use the strategies in writing. Finally, the findings from the data analysis of the current study can be used to improve and enhance the writing skills of ESL writers, which in turn can help to improve the quality of the written products of ESL writers. This focus can motivate Malaysian writers to meet the demand for fluency in English and to write better in English. Higher motivation will encourage writers to enjoy learning English, retrieve ideas for writing, develop opinion and experiences that could be applied in their writing process (Despita and Pratiwi, 2019).

Suggestions for Future Research
Future research should explore a more thorough investigation of the implications of using these strategies and the factors that influence ESL writers to use strategies in the writing process. In fact, writing strategies can also be studied by comparing metacognitive writing strategies with other strategies in ESL writing. Besides that, the use of other instruments to
collect the data such as observation, and think-aloud protocol would help researchers to probe deeper on writers’ use of writing strategies in the writing process.

REFERENCES


