EXPLORING EFL STUDENTS' PERSPECTIVES: INTEGRATING MIND MAPPING AS A COGNITIVE TOOL IN ACADEMIC WRITING CLASS

Pricilia Tupalessy, Marles Yohannis Matatula, Felicia Miranda Lekatompessy
*priciliatupalessy@gmail.com
Pattimura University, Indonesia

ABSTRACT

The purpose of the study is to find out the EFL students' perspective on the use of mind mapping as a cognitive activity in an academic writing class in the English education study program at Pattimura University. This study took 3 students (1 male and 2 females) from an English education study program. The In-depth interview is the instrument of data collection with qualitative as the research method. The result shows that the EFL students' perceptions toward mind mapping seemed to have positive responses toward their language learning with several benefits based on their experience during academic writing class, such as the writing of students was more well-structured, increased students writing grades in academic writing and the beneficialusing mind mapping made them becomes motivated in writing something. However, in the process, there were several difficulties that some students had to face when using this strategy such as they were to determine the sub-points and doing the mind mapping took more time, energy, and thoughts, and they were confused about where to start making a mind map. The study suggests that using mind mapping in writing classes, with proper support and training, can help students improve their writing skills. Encouraging its use in other subjects and adapting teaching based on feedback can make mind mapping a valuable tool for better learning and academic success.

Keywords: Mind Mapping**,** Cognitive Tool**,** Academic Writing

INTRODUCTION

The purpose of teaching writing is to help students understand the principles of writing and demonstrate key written language skills. Writing skills are as important as other language skills. According to Al Kamli (2019), writing is a very important skill in education, especially in English as a foreign language. It is supported by Astuti et al (2020), that writing is an important language skill because it means learning, discovering, developing, and improve language skills. However, before producing the final edition, writing must be planned, organized, reviewed, and edited. students must go through various cognitive processes before implementing and organizing an effective writing sequence (Amansyah et al., 2023). Students should engage in the writing process as a practical and productive activity. If successful, this will demonstrate the ability of students who understand writing strategies, to produce, and express their thoughts.

In the world of English education, mastering writing skills is a cornerstone of proficiency. More than just copying, writing serves as a means to solidify vocabulary, perfect grammar, and hone critical thinking skills. Students in the EFL writing process often find

*Corresponding author
Pricilia Tupalessy
Email: priciliatupalessy@gmail.com

themselves grappling with various challenges. According to Rachmawati et al. (2017), learning to write is tough because it involves more than just getting grammar and style right. It is about grasping the ideas behind it all and making judgments about how to express them. Writing is not just about putting words on paper; it is about organizing thoughts (Silvani, 2020), choosing the right words, and getting the mechanics down. Sometimes, writing is considered as a difficult skill to master because sometime the writer simply does not know what to say or where to start. One of them is the daunting task of turning vague ideas into coherent written discourse. Alqasham and Al- Ahdal (2022) added that the issue arises from generating and organizing ideas and converting them into coherent text. Furthermore, Landicho (2020) mentioned that students struggle with writing, and teachers also find it hard to teach. He noted that both teachers and students feel that learning writing skills is more challenging and tiring compared to learning other language skills. Moreover, coupled with a limited lexicon, students often find themselves at a loss for the right words to effectively articulate their thoughts.

To overcome these barriers, innovative cognitive skills are required, and among the various strategies available, mind mapping emerges as a promising milestone. According to Buzan (2010), mind mapping is a technique where we create a visual representation of our ideas. Mind mapping helps students to organize their thoughts before writing. it is a great way to improve writing skills, especially in foreign language lessons. Students can start by writing down their ideas and then create a mind map that shows the core idea and additional details. This helps them to understand, develop, and write those ideas better.

In the EFL (English as a Foreign Language) teaching landscape, the integration of mind mapping as a cognitive tool in academic writing classes has attracted significant attention due to its potential to enhance students' learning experience. Teachers often use the method of mind mapping to help students learn. According to Risdayanti (2023), mind mapping involves creating visual diagrams to brainstorm, organize, and solve problems, as well as to make decisions and write. It encourages students to connect ideas creatively and associate them in ways they might not think of otherwise. When applied to academic writing, this approach empowers students to brainstorm effectively, structure their arguments coherently, and navigate complex topics. The use of Digital Mind Mand can help students easily express ideas and write in a structured way, and also students can develop topics in a more modern way (Mardiah et al., 2019). By exploring EFL students' perspectives on the integration of mind mapping in academic writing classes, educators gain valuable insights into the effectiveness of this pedagogical approach and its impact on students' writing proficiency and cognitive development.

Research conducted by Alqasham and Al-Ahdal (2022) resulted in a favorable response to the use of mind mapping in improving students' writing skills. The study, which aimed to improve students' writing efficiency and mindset by utilizing mind mapping as an interactive tool, was given to 40 English students at Qassim University, Saudi Arabia who were participants in this study. The results showed that the use of mind mapping can increase students' interest in writing. Tremendous benefits were gained from mind mapping as a digital brainstorming technique in improving Saudi Arabian EFL learners' attitudes toward writing skills. In contrast to Alqasham and Al-Ahdal's study and the current study, the study conducted by Azizan et.al (2022), wanted to find out learners' proficiency in ESL including their ability to understand reading texts, namely short stories. The study conducted on Diploma Part 2 students at Technology MARA Perak University introduced the mind mapping technique that should be applied by students when discussing the storyline and main characters to ensure their understanding of short stories. Therefore, this study aimed to find out their perceptions and attitudes towards the use of mind maps in understanding short stories through a survey questionnaire. The results showed that the respondents of this study had a positive attitude towards the use of mind maps and considered it a useful tool in helping them understand short stories.

The elaboration of the previous research findings showed the emphasize on understanding students' proficiency when using mind mapping in comprehending reading text (short stories) including the opportunities and challenges that exist. Building on the findings of

those previous studies, this current research sought to understand EFL students' perspectives on the use of mind mapping as a cognitive activity in an academic writing class. Understanding EFL students' perspectives on mind mapping is crucial for teachers to adapting teaching methods to best suit their needs and preferences

METHODS

The descriptive qualitative research approach was used to carry out this study. With the purpose to reveal how English Education students perceived mind mapping as a cognitive exercise in academic writing classrooms. Three students two female and one male-who utilized mind mapping as a tool for academic writing instruction were selected randomly as participants of the study to give each member of the population an equal chance of being chosen without the need for any predetermined standards (Cohen & Manion, 2007). A semi-structured interviews with open-ended questions was also employed in collecting the data with permission, the Interviews were videotaped, which gave the interviewer the opportunity to clarify any points with further questions. After transcribing the tapes, the information was arranged and examined to pinpoint important themes. In analyzing the collected data, Miles and Huberman's (1994) method was employed for giving a comprehensive explanation about the research findings.

The first step in the data analysis process was data reduction, in which field notes data was summarized by identifying the information pertinent to the research question and then organized it in a systematic way to make data search easier if necessary. In this process, irrelevant or unsupportive information were ignored Data reduction was then conducted continuously throughout the research process. The last stage was data display, in which relevant information or findings were presented in a narrative or descriptive ways. These stages were significant to organize the information, descriptions or narratives for comprehensive conclusion. This process provided a detailed understanding of the student's experiences with mind mapping in academic writing. At last, the results of the study were reported to inform he answer to the research question.

FINDINGS AND DISCUSSION

Student's Perspective on The Use of Mind Mapping as a Cognitive Tool

In this research, the focus was to understand how students perceived the use of mind mapping as a cognitive aid in writing classes in the English Education Study Program. This research conducted in-depth interviews with the students to explore their perspectives on various aspects related to mind mapping. These aspects included how often students used mind mapping, their views on its benefits, its impact on motivation to write research, its potential to improve grades, and its overall benefits to their studies. Each topic was carefully explored through open-ended questions, which allowed students to express their opinions and experiences in detail.

Students Frequency in Using Mind-mapping

The interview revealed that all three students regularly used mind mapping during academic activities, especially for assignments and writing proposals. They confirmed its usefulness in writing classes, indicating a consistent integration into their writing processes. Interestingly, one student mentioned using mind mapping in other classes as well, showcasing its versatility beyond just writing tasks.

"Based on my experience, yes I ever used mind mapping in writing class, especially in writing proposals" **(Student 1)**

> *"Yes, in academic writing class but also in other
> classes I ever used mind mapping."* **(Student 2).**

> *"Yes, in Academic writing class"* **(Student 3)**

This consistent use among students suggests that mind mapping is a common practice and a valuable strategy for improving academic work, especially in writing assignments. The findings align with the study by Fahmi (2019), which highlighted the significant role of mind mapping in enhancing students' writing skills, particularly in composing procedural texts. Positive feedback from English students further supports the practical integration of mind mapping into learning practices. By providing a structured approach to brainstorming, organizing, and presenting information, mind mapping fosters writing proficiency, critical thinking, and metacognitive awareness.

Additionally, research by Tatipang et.al (2021) on the application of mind-mapping technique to increase students reading comprehension supports these findings. They found that the majority of students experienced improved reading skills after being taught mind-mapping techniques. This response underscores students' proactive adoption of mind mapping as a valuable tool for writing assignments and enhancing learning experiences in various subjects. Particularly in the English education study program, mind mapping helps students organize their thoughts, making their ideas clearer and more structured.

Overall, the students' responses highlighted the active use of mind mapping not only for writing but also for various academic endeavors, emphasizing its effectiveness. This tool has proven to be an invaluable asset in their academic toolkit, aiding in writing clarity, idea enhancement, and structured thinking across different contexts.

Students' perspective on the advantages of Mind-Mapping
The effectiveness

The study found consistent perceptions among the three students regarding the effectiveness of mind mapping in improving their writing skills. Each student expressed how mind mapping provided them with a structured framework for organizing their thoughts and ideas. One student likened mind mapping to a chart, illustrating how it facilitated the development of topics and sub-points, ultimately leading to well-structured writing. He also gave an example, when he did the mind mapping activity with a mindmapping application called "Bubble Us" and he found that his writing was well.

> *"Because the mind mapping is like a chart, so from
> that chart, we make a topic and continue with sub-
> points which will be developed later."* **(Student 1).**
> *"Yes, because honestly, the ideas that I want to
> express are personally undirected or indecisive so
> using mind mapping makes my writing structured."*
> **(Student 2)**

> *"When I used mind mapping, it helps me about my
> writing. So, my writing becomes more focused"*
> **(Student 3)**

These findings demonstrate that mind mapping helps with academic writing by providing students with a clear visual method to organize their thoughts, making it easier to structure their writing. Furthermore, it aids them in focusing their ideas when they are unsure about what to write. The students agreed that using mind mapping improved their writing skills, underscoring its utility. This suggests that teaching mind mapping in writing classes could benefit students by helping them become better writers.

The results align with Wahid and Sudirman (2023), mind maps can create learning environments that motivate students and can be applied at various stages of the learning process. As a result, the mind mapping technique enhances students' abilities to plan and organize their ideas for writing tasks during exams.

Additionally, Astiantih and Akfan (2023) found that writing descriptive texts with concept maps was more effective than without, highlighting the pedagogical benefits of concept maps in providing active, creative, effective, and fun learning experiences tailored to students' learning styles.

This insight underscores the diverse benefits of mind mapping in supporting the writing process, including organization, clarity, and focus. Mind mapping serves as a cognitive tool to clarify and refine ideas during writing, demonstrating its significant role in enhancing students' academic writing skills.

Motivated Students to Write

The interview results revealed varied perspectives among the three students regarding the motivation provided by mind mapping for their research writing. One student emphasized that mind mapping served as a crucial tool for overcoming procrastination by offering a clear starting point, which helped prevent feelings of laziness:

*"Mind mapping motivated me to keep writing because, without mind mapping, it makes me lazy because I do not know where to start." **(Student 1)***

Another student highlighted how mind mapping helped structure her writing and refine her ideas, addressing ambiguity and ensuring continuous improvement:

*"I often have ideas that are not fixed, still ambiguous. So, by using mind mapping, my writing is structured and the ideas can still improve." **(Student 2)***

In contrast, the third student found motivation in the visual appeal of colorful mind maps, which captured her interest and prevented boredom during the writing process:

*"Colorful mind maps make the writing process interesting and prevent me from getting bored." **(Student 3)***

Despite these differences, all three students acknowledged that mind mapping played a motivating role in their research writing endeavors. The tool provided clarity, structure, or visual appeal, thereby encouraging them to engage more actively in their writing tasks. These findings align with the results of a study by Basri and Syamsia (2020), which found that using mind mapping to teach descriptive text writing to class XI students at SMK Muhammadiyah Tidore Kepulauan was effective and well-received. Initially, students were bored, but with the introduction of mind mapping, they became enthusiastic, creative, and focused in their learning activities.

Mind mapping acts as an antidote to procrastination by offering a clear starting point, helping students combat feelings of laziness, and initiating the writing process. It provides structure to writing and refines ideas, reducing ambiguity and allowing for continuous improvement, thereby improving coherence and clarity in students' work. Additionally, the visual appeal of colorful mind maps maintains students' interest and prevents boredom during writing sessions.

Whether through providing clarity, structure, or visual stimulation, mind mapping encourages active participation in writing tasks. This underscores its value as a versatile motivational tool in academic settings, highlighting its potential to enhance students' writing experiences and outcomes.

Increase Students' Grades in Writing Class

The study yielded mixed perceptions among the students regarding the correlation between mind mapping and increased grades. One student expressed confidence that structured writing facilitated by mind mapping would lead to higher grades, citing lecturer satisfaction with well-composed proposals.

"If I compose or do my mind mapping clearly, and it
can make my writing structured, maybe it will help
me. Also, it depends on the writing outcomes".
(Student 2)

In contrast, the other two students were less certain, acknowledging that while mind mapping improved their understanding of writing, actual grade improvement depended on various factors such as the lecturer's assessment criteria and the quality of the writing outcomes.

"I am not sure, but if I do my mind mapping clearly, it makes my writing structured"
(Student 1)

"I do not know, because my lecture assessment is different"
(Students 3)

They pointed out that what grades they got depended on things like how their lecturer assessed their work and the overall quality of their writing, not just on whether they used mind mapping or not. So, while they could see how mind mapping might make their writing clearer and more organized, they were cautious about expecting it to automatically improve their grades.

Among the students, there were mixed beliefs about whether mind mapping would improve grades. One student was confident that structured writing, facilitated by mind mapping, would please their lecturer and result in better grades, especially if the proposal was well received. However, the other two students expressed uncertainty, noting that although mind mapping improved their understanding of writing, the actual grade improvement depended on various factors, including the lecturer's assessment criteria and the quality of the writing output. They acknowledged the potential benefits of clear and structured writing through mind mapping, but they also realized that grades do not solely depend on this aspect. Research conducted by Yahrif (2021) shows that the use of mind mapping in teaching recount text is quite successful. And after conducting research and calculating data, it can be stated that the use of mind mapping is effective on students' recount text writing.

Beneficial tool

The findings from the study indicate unanimous agreement among all three students regarding the beneficial aspects of mind mapping in their studies. They unanimously perceive mind mapping as highly useful, particularly within the English education study program, for enhancing writing skills and refining ideas. They emphasize that mind mapping aids in structuring their thoughts and making them clearer, akin to the concept of an outline.

"I think yes because mind mapping is very useful and also helps me"
(Students 1)
"Mind Mapping is very useful because it helps me in writing something and to
improve an idea in my mind"
(Student 2)
"I think yes because the mind mapping is like an outline. So, in doing the writing
process, it is all more structured and clearer"
(Student 3)

The study results reveal a shared belief among all three students regarding the positive impact of mind mapping on their academic endeavors. They unanimously view mind mapping as an invaluable tool, especially within the English education program, for improving writing abilities and honing their ideas. As supported by Buzan (2010) who developed this learning tool, explains that mind mapping is designed as a creative visual aid for students. It helps them understand what they're learning by simplifying and organizing their ideas through note-taking and summarizing. They emphasize how mind mapping assists them in organizing their thoughts and achieving clarity, likening its function to that of an outline. This underscores the widespread recognition among students of the practical benefits of mind mapping in enhancing their study techniques and academic performance.

A study conducted by Silulu and Nasir (2022) about how the use of mind mapping techniques to improve students' writing ability. The result showed that mind mapping had positive effect toward students' writing ability. Mind mapping made students' more active and creative in shared their ideas in writing English. Moreover, the mind mapping technique was also an effective tool to develop students' cognition skills and help them in doing assessments or reflection. In essence, they perceive mind mapping as a helpful aid that facilitates better understanding and more effective communication of ideas, particularly within their field of study.

Students' perspective on the disadvantages of Mind-Mapping
Difficulties

The students expressed various perspectives on the difficulties they encountered while utilizing mind mapping. The first student highlighted the challenge of determining sub-points and the time, energy, and mental effort required to create a mind map. Similarly, the second student noted confusion about where to begin constructing a mind map.

> *"Although there are many variations of mind mapping from the internet there is a little confusion".* **(Student 2)**

Echoing this sentiment, the third student emphasized the struggle to identify the main idea or point they wished to convey, leading to uncertainty about which sub-points to include in the mind map.

> *"So, I do not know what sub-points I have to put in mind mapping".* **(Student 3)**

The students provided insights into the challenges they encountered while using mind mapping as a study tool. One student found it challenging to determine sub-points and expressed the considerable time, energy, and mental effort required to create a mind map. Another student highlighted confusion about where to start constructing a mind map despite the availability of various templates online. This uncertainty hindered the process of creating a clear and effective mind map. Similarly, the third student struggled with identifying the main idea or point they wanted to convey, resulting in uncertainty about which sub-points to include in the mind map. These difficulties collectively underscore the hurdles students face in effectively implementing mind mapping techniques, particularly in terms of organizing thoughts and ensuring clarity in idea generation and structuring.

Essentially, the students' experiences highlight the need for support and guidance in mastering this valuable study tool to overcome these challenges effectively. It is noted that even though mind mapping is good for teaching, it has disadvantages too. According to Purba et al. (2021), mind mapping has some drawbacks. Creating a completely new topic mind map is challenging and requires some prior knowledge. Also, linear recording might be better for

some types of information. Without proper planning, making mind maps can be frustrating due to limited space and lack of creative thinking. Lastly, mind mapping isn't always more intuitive than taking linear notes. One downside is that it takes a lot of time to organize and find the right keywords. This can make it hard for students to make a complete mind map because it takes too much time.

Students Expectations on Writing Outcomes Using Mind-Mapping

Based on the interview results, the student's expectations regarding writing outcomes through mind mapping were consistent across the board. They anticipated that employing mind-mapping techniques would result in improved and more structured writing, leading to higher grades. Additionally, they expressed the expectation of enhancing their proficiency in using technology, particularly mind-mapping applications. Lastly, they hoped that their writing, aided by mind mapping, would be well-received by their lecturers.

> *"My expectation when I used mind mapping is I hope my grades in writing class good and my writing will be well"*
> *(Student 1)*
> *"I hope, I can be good at using technology, especially using mind-mapping applications. In terms of writing is moved structured better too. Also, my lecture accepts my writing" (Student 2)*
> *"My expectations are by using mind mapping, my writing will be better and more structured and also more directed. I also hope to get good grades"*
> *(Student 3)*

Overall, these students had the same expectations to improve their writing output and proficiency in using technology, with the ultimate goal of achieving academic success and recognition from their lecturers.

CONCLUSION

This study explored students' perspectives on using mind mapping in the English Education Study Program's writing classes. Interviews revealed that students frequently use mind mapping across various academic tasks, appreciating its versatility and effectiveness. They unanimously recognized its benefits in structuring thoughts, overcoming hesitation, and enhancing focus. Motivations for using mind mapping varied from combating procrastination to improving clarity and visual appeal. While students viewed mind mapping as beneficial for writing outcomes, they had mixed perceptions about its direct impact on grades. Some challenges were noted, such as determining sub-points and main ideas. Despite these, students expected improved writing outcomes and better proficiency with technology through mind mapping.

The study implies that mind mapping should be integrated into the writing curriculum to help students develop structured and coherent writing skills. Educators should provide continuous support and training on effective mind mapping techniques and encourage students to personalize their mind maps to enhance engagement. Evaluating and adapting teaching strategies based on student feedback will optimize mind mapping use. Promoting its use in other academic activities can help students adopt a holistic approach to learning and improve overall performance. Implementing these recommendations can help students maximize the benefits of mind mapping as a cognitive tool for academic success.

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