



## Improving the English Teaching & Learning Process and English Writing Skills of Grade Eight Students at Junior High School in Yogyakarta through Coggle Mind Mapping in the Academic Year 2024/2025

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### **Abstract**

This classroom action research aims to improve second-grade students' English teaching and learning process and writing skills at Junior High School in Yogyakarta by utilizing Coggle mind mapping. The study involved an English teacher as the researcher and another English teacher as a collaborator. The subjects were eighth-grade students of the Junior High School in Yogyakarta in their first semester. Conducted over one month in two cycles, data collection methods included observations, interviews, and students' writing tasks. This classroom action research followed Kemmis and McTaggart's (1998) action research model, as adapted by Burns (2010), which consists of four steps: reconnaissance, planning, action, observation, and reflection. Qualitative data were gathered from observations and interviews and analyzed using Miles et al.'s (2014) technique. Quantitative data were obtained from students' writing performance, measured through pre-tests, progress tests, and post-tests. The final analysis compared pre-test scores with progress-test and post-test results to assess improvement. Data triangulation, combining observations, interviews, and tests, was used to confirm students' writing skills enhancement. Based on the research results, using Coggle mind mapping in this study was believed to enhance the English teaching and learning process, improving students' writing skills, particularly in terms of organization and content. Moreover, students' engagement in the learning process also increased. They enjoyed the teaching-learning process, felt motivated, and were more confident about participating in the writing task. The improvement was also supported by the students' writing scores, which increased by 17.88 points, from 53.11 in the pre-test to 70.99 in the post-test.

**Keywords:** *English Teaching and Learning Process; Writing Skills; Coggle Mind Mapping*

### **Introduction**

English is primarily acknowledged as a global lingua franca. It conveys messages, emotions, and aspirations from one individual to others. Sani & Ismail (2021) assert that students must acquire the skills necessary to navigate and overcome the rigorous requirements and obstacles of education in the 21st century. Insufficient knowledge of English affects interesting communication with others. Therefore,

students must acquire proficiency in the English language due to its significance in their everyday oral and written communication.

Indonesian educational curriculum includes instruction on several text forms of English for junior high school students. English is a mandatory subject taught in junior high school (Ningsih, 2016). When studying various text genres in English, it is essential for students to also focus on developing their writing skills. Writing is a task that may be interestingly enhanced by practicing and developing other language abilities, such as listening, speaking, and reading (Nation, 2008). It signifies that writing and other essential abilities are crucial to language education. Writing entails conveying words and ideas through written language, providing readers with information.

Writing is a helpful skill that helps students articulate their ideas in written form. It serves several purposes, including researching, instructing, and communicating. Students will pay more attention when they are given practice to write. They can start writing from the topic, suitable title, choice of words (diction), etc. They will revise again and again to get the satisfying result expected. In addition, writing is one of the ways to transmit thoughts or ideas to others (Huy, 2015). Moreover, writing is a productive and expressive activity that most people use. Individuals can communicate their ideas, thoughts, experiences, wishes, and desires through written communication to achieve a specific goal. The primary aim of writing is to convey information interestingly. However, to ensure that our message is compelling, appealing, and clear to the reader, it is essential to enhance this skill through extensive practice.

Writing is often a problematic cognitive activity (De La Paz & Butler, 2018). Writing is the most challenging skill compared to the other three language skills. Furthermore, Yulianti (2018) identifies that a lack of vocabulary, inadequate comprehension of grammatical rules, and a lack of self-assurance are the primary reasons for writing challenges. Acquiring proficiency in writing English as a foreign language (EFL) is more intricate than writing in one's native language. During the act of writing, students engage in the task of organizing words into coherent sentences and expanding them into well-structured paragraphs. Students generally have a lack of preference for developing their writing skills. There is a need to enhance students' writing skills and ensure that the objectives of the teaching and learning activities are achieved. Christzer et al. (2018) noted that the primary issues in writing include a dearth of ideas, incorrect word usage, weak sentence structures, and a lack of connectives. This phrase implies that although students possess ideas for writing, they struggle to interestingly express and convert them into coherent and well-written work, lacking correct flow, presentation, and linguistic proficiency. These issues primarily arise due to student's insufficient experience. In response to the challenges students encounter in learning to write, several endeavors have been undertaken to address these issues. These tools facilitate student's acquisition of English writing skills. Consequently, teachers must enhance their teaching quality and maintain their enthusiasm for writing. Therefore, students can create written content that the reader may comprehend effortlessly.

Students at Junior High School in Yogyakarta continue to struggle with writing in English, particularly in generating and developing their ideas as well as mastering grammar. They face challenges in composing texts, specifically in organizing their thoughts and constructing correct sentences in the simple present tense. These difficulties were identified during initial classroom observations and reflected in their scores on daily tests. When asked to write, students frequently hesitated and took a long time to begin due to uncertainty about how to start. Their writing difficulties included a lack of ideas, challenges in organizing thoughts, issues with rhetorical structure or patterns of thinking, as well as problems with cohesion and coherence (Nurhayati, 2016). The students struggle with writing skills, including idea generation, revising, and editing their drafts. If writing instruction does not include example scenarios, the outcomes are likely to be unsatisfactory unless these issues are addressed. To tackle the challenges related to writing, it is essential to implement more interesting teaching methods for junior high school students. In this context, teachers must adopt strategies that help students arrange, elaborate on, and organize their ideas for proficient writing. It is the teacher's responsibility in the English learning procedure to choose an

appropriate strategy for teaching writing. By implementing this strategy, the student's issues will be resolved, enhancing their writing proficiency. The researcher suggests using an innovative approach that utilizes mind mapping in educational settings. Depending on the educational setting, mind maps are often created using traditional tools such as paper and ink or a whiteboard. Nevertheless, as the educational landscape evolves, a growing focus is on integrating digital environments into teaching and learning. Pazilah et al. (2019) assert that using technology in educational settings has gained importance, particularly in enhancing language acquisition. This presents an ideal occasion to adopt a more digitized approach to mind mapping. According to Yunus (2018), using technology tools to Teach English as a foreign language is not a recent development.

Aydoğdu & Güyer (2019) state that mind maps serve several purposes: communication, entertainment, learning, and reading. In line with that, Yan & Kim (2023) say that Coggle mind mapping in reading strategy instruction creates a visual and meaningful learning experience for students, both individually and collectively. In addition, Guo & Li (2023) assert that the Coggle mind mapping is beneficial for reaching learning goals and fostering positive reading habits in lifelong learners. Chang et al. (2018) mention that mind mapping enables students to accomplish and document material about their studies while enhancing the coherence of their knowledge. From the studies earlier, most mind mapping with the Coggle application focuses on students' reading. There is a scarcity of comprehensive research on using the Coggle application for mind mapping to improve writing skills in Indonesia. In the area of studies aimed at enhancing writing abilities through the Coggle mind mapping application, a significant theoretical gap exists that needs further exploration. While previous studies have demonstrated that mind mapping can assist in

Planning writing skills, there has yet to be an in-depth investigation into how the mind mapping application by Coggle affects students' writing processes. Furthermore, there is a need to understand how the use of Coggle mind mapping may lead to differences in the quality of students' writing, particularly focus on organization and content

By addressing this theoretical gap, valuable insights can be gained into the beneficial of using the Coggle mind mapping application to improve the English teaching and learning process and students' writing skills. This study also provides guidance for teachers in creating more interesting and adaptable teaching strategies. These strategies would be based on a deeper understanding of the interaction between technology and the learning procedure. Therefore, this study introduces a different skill and tool to build upon previous research.

In light of the challenges identified, the researcher will conduct a study titled "Improving the English Teaching & Learning Process and English Writing Skills of Grade Eight Students at Junior High School in Yogyakarta through Coggle Mind Mapping in the Academic Year 2024/2025." This classroom action research will be carried out in collaboration with a partner. Both the researcher and collaborator believe that Coggle mind mapping is an interesting tool to support English learning, enhance the teaching and learning procedure, and improve students' writing skills.

## **Method**

In this research, the researcher would use a Classroom Action Research (CAR). The model of action research used in this research is the model which was developed by Kammis and Mc Taggart in Burns 2010:7-9). According to them, classroom action research is composed of cycle consisting of four stages namely: 1) plan, 2) action, 3) observation, and 4) reflection.

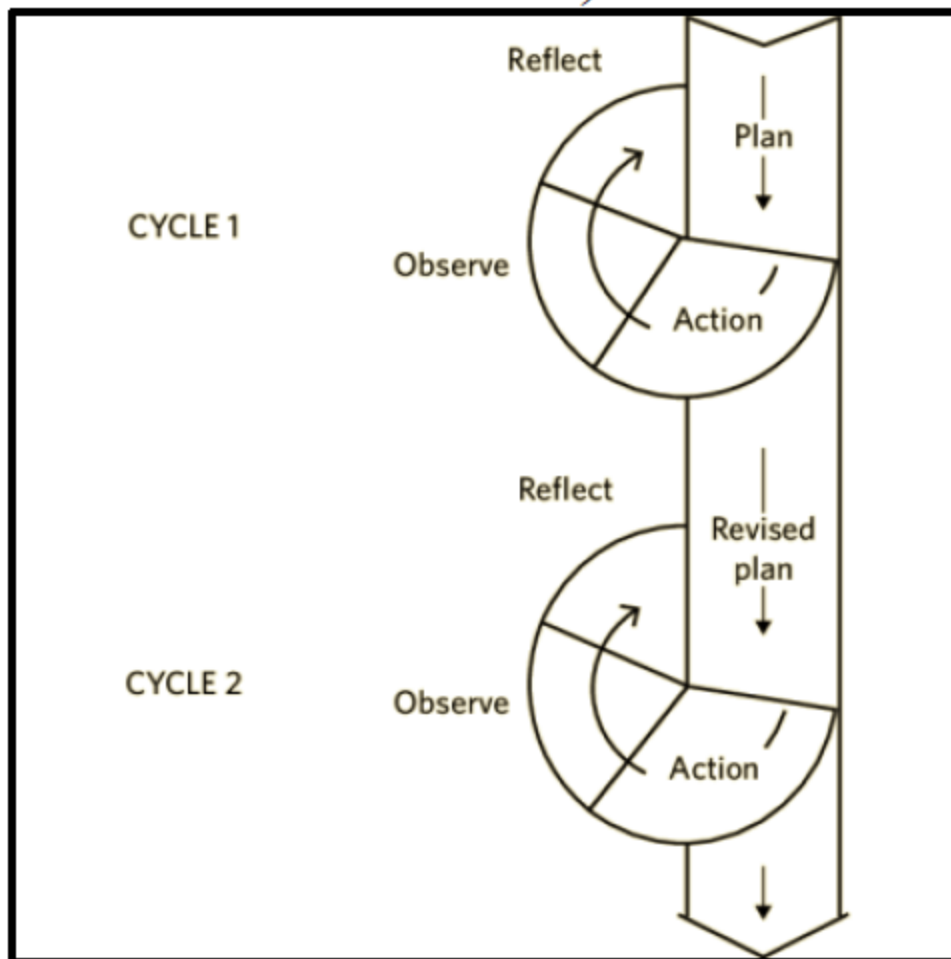


Figure 1 The Cyclical AR Model  
(Kemmis & McTaggart, 1988)

Then the population of the research was the eighth-grade students of Junior High School Bantul. The researchers determined that the subjects of this research were 30 students at 8th grade at Junior High School Junior High School in 2024/2025 academic year. The data was collected using both quantitative (conducted pretest and post-test) and qualitative (conducted observation, questionnaire, interview and documentation) technique.

In the action, the researcher taught the students about writing skills using a media called Coggle mind mapping while the teacher became the observer. In the observation phase, the researcher not only made observation notes but also took documentation during the learning process using flashcards. Last, the researcher made reflection as well as evaluation dealing with the action to be able to determine the success of the action done.

This is the last phase in which the researcher was required to present the study's findings. It comprised asking why such a study was necessary, explaining the research's context, summarizing the data-supported findings in relation to the context and findings, and, lastly, recommending any improvements that other researchers might need to make in order to further develop the findings.

There are five requirements for action research validity, according to Anderson et al. in Burns (1999: 161–162). The five types of validity are as follows: process, dialogic, result, democratic, and catalytic. The following are the criteria's explanations.

### **1) Democratic Validity**

To ensure democratic validity, the researcher must provide opportunities for collaborators and students to share their thoughts and ideas as well as for comments, suggestions, and criticism regarding the research. In the study, the teacher and the researcher collaborated. Throughout the entire study process, she had conversations with the English teacher. The teacher's thoughts, remarks, recommendations, and opinions were incorporated by the researcher. She also conducted interviews with the students to get their opinions on how the research will be carried out. When completing the research, their suggestions, opinions, criticisms, and ideas were also taken into account.

### **2) Outcome Validity**

This validity indicates that the study's findings are fruitful. The outcome validity of this study was the increase in the students' vocabulary mastery following treatment using flashcards used in the teaching and learning process.

### **3) Process Validity**

This criterion pertains to the research's competency and dependability. Process validity was carried out to ensure that the research's operations were dependable and executed according to plan. There are two cycles to the research process. The steps in each cycle were planning, executing, assessing, and reflecting.

Along with the researcher, a colleague who taught English to class VIII at Junior High School, also conducted the observation. This research was conducted in two cycles, with preparation, activity, and reflection processes included in each cycle. Photographs, field notes, and interview transcripts were the formats used to store the data. In order to improve teaching and learning procedures in cycle 2, the researcher and the English teacher both assessed and considered the activities carried out in cycle 1.

### **4) Catalytic Validity**

In order to determine catalytic validity, the researcher looked at how the pupils behaved both before and after the acts. At this point, the researcher watched as the action was carried out to assess if the students' attitudes about the process of teaching and learning had changed. To ascertain whether the pupils' comprehension of vocabulary had improved, pre- and post-tests were also administered.

### **3) Dialogue Validity**

Validity was satisfied in this step by a discussion of the research findings with the students, who were the study's subjects, and the English teacher, who served as the collaborator. The researcher received assistance from the English teacher in cycle 1 and cycle 2 in assessing and considering the process while the actions were being carried out. The students assisted the researcher in learning what the participants thought of the acts. The data was then written by the researcher. She then wrote a report detailing all of the activities to share the findings of the investigation. Furthermore, triangulation procedures are required to gain the trustworthiness and eliminate subjectivity in the data analysis. Burn (1999: 164) indicates that there are four different kinds of triangulation methods. These four types of triangulation include investigator, time, space, and theoretical triangulation. Two of the triangulation approaches were used in this investigation. They are the investigator triangulation and the time triangulation. To determine the causes contributing to the changes, time triangulation was employed, wherein data were gathered over a specified period of time. The English teacher participated in the research as a collaborator using the investigator triangulation method.

## Results and Discussion

In Cycle 1, the use of Coggle mind mapping helped boost the students' motivation to write in English. Positive feedback and praise helped reduce their anxiety, making them more involved in the writing tasks. Chang et al. (2018) note that mind mapping enables students to organize and document material about their studies while enhancing the coherence of their knowledge. The students enjoyed using Coggle, which heightened their confidence in writing and learning English. Their participation in the learning procedure improved, with students becoming more active in discussions and group work, although some still required encouragement to engage fully during group activities.

As a result of mind mapping, some students were able to enhance their vocabulary and remember new words, which enabled them to complete tasks more efficiently. They also had more opportunities to arrange and develop ideas relevant to the topic. Writing learning involves starting, progressing, and finishing a complicated and demanding combination of writing tasks (Fatiani et al., 2021). The skill is complex and needs more practice because the writer engages the reader through words and symbols. It is in line with Haerazi et al. (2020), who argue that writing is a complicated task if they are trying to grapple with their language with new ideas and new ways of looking at it. That was why the students needed more treatment in cycle 2. While some students showed improvement in producing well-organized and cohesive texts, there was still room for optimization. The students' motivation and focus heightened as they found the use of Coggle engaging and enjoyable, especially since they could use their phones for learning.

For the researcher, proper preparation was crucial before using Coggle in the classroom, including ensuring that the phones and internet connection worked smoothly. While some students were unfamiliar with the tool, they quickly became more independent in using it. Due to time constraints, feedback provided to the students was not optimal, but most students demonstrated confidence in developing their ideas and organizing content, although a few still made mistakes.

Cycle II resulted in significant improvements in both the students' writing skills and the English teaching and learning process. The students became more eager to write and were able to engage with the lesson more interestingly. In line with that, **Yan & Kim (2023)** say that Coggle mind mapping in writing strategy instruction creates a visual and meaningful learning experience for students, both individually and collectively. Their ability to arrange and develop ideas improved, as did the quality of their writing, particularly in content and organization. The time management issues experienced in the first cycle were resolved in Cycle 2, as the researcher provided more explicit instructions and set specific time limits. The students were able to finish the mind mapping and writing tasks more efficiently, and the time allocated was more suitable.

The students reported an increase in their motivation to write in English, with many enjoying using Coggle mind mapping and collaborating with their peers. According to Erdem (2017), using Coggle mind map offered students three key benefits: it helped them learn more easily, improve memory retention, and better organize their ideas. They were able to enhance their writing skills and create more organized and coherent texts. Their participation in class was more active, and they made progress in answering questions, discussing topics, and practicing their writing skills. The use of a dictionary helped them understand new vocabulary, which enhanced their writing further.

In conclusion, the implementation of Coggle mind mapping in the classroom proved to be a successful strategy for improving both the instructional process and students' writing abilities. In conjunction with qualitative data gathered from observations and interviews, quantitative data from pre-tests, progress tests, and post-tests were employed to evaluate students' writing skills and the overall enhancement of the instructional process. The researcher collaborated with the English teacher to impartially assess the students' scores, focusing on organization and content through a writing assessment rubric. The students' scores showed a noticeable improvement across the different assessments.

Table 1: Students' Improvement Scores of Pre-Test and Progress Test

Test	O	C	G	M	S	Final Score
Pre-test	9.91	10.54	10.84	11.06	10.73	53.11
Post test	14.23	14.50	13.81	14.45	14.30	70.99
Improvement	4.32	3.96	2.97	3.39	3.57	17.88

Code:

**O: Organization**

**C: Content**

**G: Grammar**

**M: Mechanic**

**S: Style of expression**

According to the pre-test and progress test data, students' organization scores improved by 2.62 points, rising from 9.91 in the pre-test to 12.53 in the progress test. Additionally, the students' content scores increased by 1.94 points, from 10.54 in the pre-test to 12.48 in the progress test. As a result, students' final scores improved 8.89 from 53.11 to 62.00.

Table 2: Students' Improvement Scores of Pre-Test and Post-Test

Test	O	C	G	M	S	Final Score
Pre-test	9.91	10.54	10.84	11.06	10.73	53.11
Post test	14.23	14.50	13.81	14.45	14.30	70.99
Improvement	4.32	3.96	2.97	3.39	3.57	17.88

The pre-test and post-test data were compared to evaluate the enhancement of students' writing skills following the implementation of Coggle mind mapping. The student organization's score increased from 9.91 in the pre-test to 14.23 in the post-test, an improvement of 4.32 points. The content score improved by 3.96 points. As a result, students' overall scores rose by 17.88 points, from 53.11 in the pre-test to 70.99 in the post-test. The researcher utilized the Coggle mind mapping application to improve writing skills, focusing on organization and content. As for grammar, mechanics, and style of expression, these elements were still taught during the learning process, but without using the Coggle application. This approach aimed to broaden students' understanding of these three aspects. Based on this data, it can be concluded that Coggle mind mapping interestingly enhanced students' writing skills, particularly in organization and content.

## Discussion

The discussion section elaborates on the study's findings, comparing current results with previous research and integrating expert theories. This section highlights the learning procedure and the development of students' writing skills.

At the outset of the study, the researcher carried out observations, interviews with the English teacher and students, and a pre-test to identify challenges in teaching writing. The primary issue students faced was difficulty in symbolizing their ideas. Before implementing Coggle mind mapping, students struggled to translate their thoughts into written form and showed a lack of engagement in the learning procedure. Their difficulty in developing ideas led to writing that lacked clarity and logical flow.

After implementing Coggle mind mapping in two cycles, several improvements were observed in the students' learning processes and writing abilities. One key finding was that Coggle helped students arrange and organize ideas relevant to the topic. Although some students still required significant time, many were able to produce well-structured and cohesive texts. This aligns with Buzan's (2004) assertion that mind mapping aids in idea development and organization before writing. Coggle's mind mapping strategy interestingly connects ideas and motivates students to actively engage in the writing procedure. Furthermore, students found it easier to structure their sentences clearly when using Coggle. This instructional approach, which involved providing feedback, encouraging independent work, and offering visual guidance, greatly enhanced both the writing skills and the overall learning experience of Class VIII D students at Junior High School in Yogyakarta during the 2024/2025 academic year.

The study also revealed that students enjoyed using Coggle for mind mapping, confirming the tool's beneficial in enhancing the learning experience. This supports Buzan's (2004) view that mind mapping is a simple and natural procedure, making complex information easier to understand and recall. Additionally, students demonstrated improved behavior, becoming more engaged in lessons and enthusiastic about writing,

further emphasizing the benefits of mind mapping. As noted by Salem (2020), mind mapping can enhance student engagement and writing skills, with participants appreciating the creativity it allows through using colors, symbols, and design elements.

Integrating Coggle mind mapping into the classroom aligned with the school's mission to incorporate technology into teaching and learning. Using Coggle improved the writing procedure's efficiency, as students could quickly create and organize their ideas using the technology. This finding is similar to the study by Vejayan & Md. Yunus (2022) who argued that digital mind maps, such as those created with Coggle, are more engaging and interesting than traditional ones due to their interactive features, including colors and images.

Quantitative data from pre-tests and post-tests further validated these findings. The students' organization scores heightened from 9.91 in the pre-test to 14.23 in the post-test, reflecting a gain of 4.32 points. Additionally, the overall score rose from 53.11 to 70.99, indicating improvements in both content and organization. These results suggest that implementing Coggle mind mapping was interesting in enhancing students' writing skills.

In summary, the study demonstrated substantial progress over the two cycles. By the end of the second cycle, students were able to produce well-structured and coherent texts. This supports Chang et al. (2018) who emphasized that Coggle mind mapping helps students organize their knowledge in a coherent manner. The use of mind mapping software, as noted by Erdem (2017), provides students with advantages in learning, remembering, and organizing their ideas. Coggle mind mapping encourages students to arrange numerous ideas, improving both the planning and writing procedure. The visual nature of mind maps helps students see relationships between ideas, enhancing their writing organization and reducing



the risk of boredom. Thus, it can be concluded that Coggle mind mapping is an interesting and reliable technique for improving students' writing skills and enhancing the overall teaching and learning procedure at Junior High School in Yogyakarta during the 2024/2025 academic year.

## Conclusion

This study aimed to improve both the English teaching and learning process and the students' writing skills of second-grade students in class D at Junior High School in Yogyakarta by implementing Coggle mind mapping. The research involved two weekly meetings from November to December 2024, during the first semester of the 2024/2025 academic year. It was carried out in two cycles, enhancing students' writing abilities, particularly in organization and content. Coggle mind mapping was applied as an instructional technique throughout the implementation of the study. After implementing two cycles, the researcher concluded that Coggle mind mapping was an interesting strategy for enhancing both the English teaching and learning process and the writing skills of eighth-grade students in class D at Junior High School in Yogyakarta. Students' primary challenge in writing was generating, developing, and organizing their ideas. Through Coggle mind mapping, students could visualize topics more clearly, making expressing and expanding their thoughts easier. The central theme of the mind map provided a clear focus for writing while supporting ideas that branched out in a structured manner. Additionally, the use of relevant keywords in the mind maps helped students improve their content and streamline the organization of ideas, ultimately saving time by allowing them to concentrate on essential content.

Furthermore, students were encouraged to incorporate images and colors into their Coggle mind maps, which heightened their engagement and interest in writing. The structured nature of the mind maps also helped students grasp the generic structure of their texts, serving as a framework for their compositions. These features stimulated students' cognitive processes, enabling them to work more efficiently and interestingly.

The assessment was conducted in three stages: the pre-test, progress test, and post-test, to evaluate students' progress in writing. To maintain objectivity in grading, the researcher collaborated with the English teacher. The integration of Coggle mind mapping and additional supportive strategies contributed to improvements in students' writing skills and the overall teaching and learning process. As a result, students found writing easier, and their performance improved. The average score rose from 53.11 in the pre-test to 70.99 in the post-test, demonstrating a significant improvement. In the post-test, 29 students scored 70 or higher, marking an overall increase of 17.88 points from the initial assessment.

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