Mind Mapping-Enhanced Reading Comprehension to Indonesia Islamic Junior High School Students: An Action Research

Dewi Nopita¹, Satria Agust¹ and Yuni Indriani¹
¹Universitas Maritim Raja Ali Haji
email: dewinopita@umrah.ac.id
email: satria.agust@umrah.ac.id
email: yuniindriani020697@gmail.com

Abstract

This classroom action research was conducted in a State Islamic Junior High School in Tanjungpinang at the 8th grade in academic year 2020-2021. The purpose of the research was to describe how mind mapping can improve students’ reading comprehension of descriptive texts. The participants of the research consisted of 27 students. To gather the research data, the researchers used observation and test. The test was administered three times (pre-test, post-test 1, and post-test 2). Then, the data got from the observation were analyzed qualitatively while those from test were analyzed quantitatively. The result of pre-test was 9 students (33,3%) scored ≥70. In the post-test first cycle, the score of 16 students (59,25%) was ≥70, and in the post-test cycle II, 20 students (74,1%) scored ≥70. The results of the tests showed that the number of students who got score ≥70 improved. Meanwhile, the result of the observation showed that the use of mind mapping was successful in improving students’ reading comprehension. The students became more interested and more motivated to learn. It showed that ≥70% of the students participated actively in the teaching and learning process. Therefore, it is recommended for teachers to use this technique to upgrade students’ learning achievement.

Keywords: Reading comprehension, mind mapping technique, descriptive text

Abstrak

Penelitian tindakan kelas ini dilakukan di sebuah madrasah negeri di Tanjungpinang pada kelas 8 tahun pelajaran 2020/2021. Tujuan dari penelitian ini adalah untuk mendeskripsikan bagaimana teknik Mind-Mapping dapat meningkatkan kemampuan siswa dalam membaca pemahaman teks deskriptif. Subjek penelitian ini terdiri dari 27 siswa. Instrumen yang digunakan dalam pengumpulan data yaitu observasi dan tes. Tes dilaksanakan tiga kali (pre-test, post-test 1, dan post-test 2). Data yang diperoleh dari hasil observasi dianalisis secara kualitatif, sedangkan data yang diperoleh dari hasil tes dianalisis secara kuantitatif. Hasil dari pre-test menunjukkan bahwa hanya 9 orang siswa (33,3%) yang memperoleh skor ≥70, hasil dari post-test 1 yaitu 16 siswa (59,25%) memperoleh skor ≥70, dan hasil dari post-test 2 menunjukkan 20 siswa (74,1%) memperoleh skor ≥70. Dari hasil masing-masing tes ini
INTRODUCTION

In Indonesia, reading as an English language skill is taught from secondary school (Sekolah Menengah Pertama (SMP)/ Madrasah Tsanawiyah (MTs)) to high school (Sekolah Menengah Atas (SMA)/ Madrasah Aliyah (MA)). Students’ success in reading English depends on a great extent on their understanding of the texts, and this understanding is influenced by a variety of features that characterize the nature of text (Beck, McKeown and Worthy in Presnyakova, 2011). In teaching reading, English teachers need to have knowledge and skill of how to make students able to comprehend English texts they are reading. Curriculum 2013 (K13) requires students to have knowledge about the social function, the purpose, the structure, and the language features of different types of English reading text (Menteri Pendidikan dan Kebudayaan Indonesia, 2018). The teaching of reading is done through several steps: observing, questioning, collecting data, associating, and communicating.

To have skill on reading descriptive texts is a curriculum demand for the 8th grade students. A descriptive text is a text that transfers the writer’s images or feeling so that the readers can imagine or as if they are also engaged on it (Keraf, 2000). It is a text that gives readers description of a particular thing, animal, person, or others (Gerot & Wignel, 1994). The social function of the text is to make students able to sale, to introduce, to identify, and to criticize things or people around them. In reading a descriptive text, the students are supposed to get the idea of the text they reading (Silitabs SMP/ MTS, 2019). In doing this, students’ knowledge of the text structure plays an important role. It makes students easier to find out the idea of each paragraph. There are two elements of a descriptive text (identification or general statement and description). Identification aims at introducing and identifying a specific participant (a person, thing, place, or animal), and description contains descriptive details or information of characteristics, appearances, personalities, habits, or qualities of the person, the thing, the animal, or the place describing (Butt, Fahey, Feez, Spinks, & Yallop, 2000; Derewianka, 1990; Emilia & Christie, 2013; Gerot & Wignel, 1994; Knapp & Watkins, 2005; Nafisah & Kurniawan, 2007).

In the last decade, there have been many researchers conducted researches on mind mapping technique with different research methods in different contexts (Jones, Ruff, Snyder, Petrich, & Koonce, 2012; Kalyanasundaram et al., 2017; Kernan, Basch, & Cadorrett, 2018; Kulsum,
2018; Suyanto, 2015; Wilson, Copeland-Solas, & Guthrie-Dixon, 2016). Then, based on the preliminary study, teaching reading descriptive text was not an easy task. After observing the English class, it was noticed that most students had low motivation to learn because they had a very limited vocabulary but were lazy to check up dictionary. The students depended much on vocabulary when they were reading. Besides, it was also found that the teachers taught reading by translating the English text into Indonesian. It indicates that the teachers were still confused about how to make students understand a reading text. Furthermore, even though the students had been taught the text structure, their reading comprehension did not improve. This made the English class boring and uninteresting for the students. As a result, the students’ achievement in reading was low.

Due to the conditions found, it is prompted to utilize mind mapping in improving students’ reading comprehension of descriptive texts. Mind mapping is a technique that can help students easily understand the information. This technique prepares the students’ mind in a way that information can be used in a logical and imaginary way to create an image in the brain. In mind mapping technique, the main idea is specified first before the linear view is explained. This technique promotes students’ knowledge and helps increase students’ motivation to study (Buzan, 2016). The natural structure of mind mapping is that the central word will produce small branches. Through mind mapping technique, students are trained to capture various interconnected trains of thoughts in one place (Griffiths, 2020). Therefore, mind mapping technique is assumed to be suitable to apply in teaching reading of descriptive texts. This article is going to describe how mind mapping can improve students’ reading comprehension.

2. METHOD

This is a classroom action research conducted at class VIII-5 of a State Islamic Junior High School in Tanjungpinang in academic year 2020/2021. There were 16 female students and 11 male students who were in between 13 to 14 years old. Classroom action research has four stages: planning, action, observation, and reflection (Arikunto, 2009). Planning focuses on how the action will be carried out; action is how to implement the planning; observation is collecting the data of the action; reflection means analyzing the results whether or not the mind mapping technique is successful in improving students’ reading comprehension.

The data of the research was collected through observation and test. The observation was used to observe classroom atmosphere related to students’ activities or participation in learning reading comprehension of descriptive texts by employing mind mapping. The research was stopped at cycle 2 because the criterion of success that is ≥70% of the students had actively participated in learning process was achieved. Meanwhile, the test was administered three times: pre-test, post-test 1, and post-test 2 because the criteria of the research success was achieved at cycle 2, that is 70% of the students can get reading score ≥70 which became the minimal passing grade for reading skill at the school. In each test, the students were given different descriptive texts with 10 comprehensive questions to answer which were designed based on the demand of the syllabus. The test was used to measure the students’ reading descriptive text
achievement. The criteria of success are drawn in the following table.

Table 1: The Criteria of Success

| The Criteria of Success | Source of Data | Data Collection Instrument |
|-------------------------|----------------|---------------------------|
| Product                 | At least 70% of the students pass the passing grade (≥70) | The students’ scores of reading comprehension of descriptive texts | Descriptive Reading Comprehension test |
| Process                 | At least 70% of the students participate actively during the implementation of mind mapping technique | The students’ participation during the implementation of mind mapping strategy | Observation checklist |

3. FINDING AND DISCUSSION

FINDINGS

Students’ Reading Comprehension of Descriptive Texts

The descriptive reading test was administered at the first, the third, and the fifth meeting. The first meeting was used to know the students’ descriptive reading comprehension before being taught through mind mapping. The result of the pre-test was that there were only 9 students who got score ≥70 (33,3%). It showed that the students did have problem with reading comprehension of descriptive text. The following table illustrates the result of the pre-test.

Table 2: The Students’ Descriptive Text Reading Comprehension Scores of Pre-Test

| No | Description          | Speaking Test Score |
|----|----------------------|---------------------|
| 1  | The Highest Score    | 86                  |
| 2  | The Lowest Score     | 36                  |
| 3  | The Mean Score       | 58,33               |

From the table, it can be concluded that the highest score the students got in the pre-test was 86 and the lowest one was 36. The mean score was 58, 33.

Then, after having the result of the pre-test, the students were taught reading comprehension of descriptive texts through mind mapping. In the third meeting (the first cycle), the students were given post-test. The result of the posttest was that there were 16 students (59,25%) got score ≥70 which can be seen in the following table.

Table 3: The Students’ Descriptive Reading Comprehension Scores of 1st Cycle posttest

| No | Description          | Speaking Test Score |
|----|----------------------|---------------------|
| 1  | The Highest Score    | 90                  |
| 2  | The Lowest Score     | 56                  |
| 3  | The Mean Score       | 70,22               |
The table tells us that the highest score was 90, the lowest score was 56, and the mean score was 70.22. It encouraged the researchers to continue to the next cycle because the students got scored ≥70 were less than 70%

In cycle 2, the posttest was re-administered. The following table shows the cycle 2 posttest result.

Table 4: The Students’ Descriptive Reading Comprehension Scores of 2nd Cycle Posttest

| No | Description       | Speaking Test Score |
|----|-------------------|---------------------|
| 1  | The Highest Score | 100                 |
| 2  | The Lowest Score  | 60                  |
| 3  | The Mean Score    | 74.1                |

The result of the test showed that the highest score was 100, the lowest was 60, and the mean score was 74.1. In this cycle, there were still students who did not pass the passing grade (score ≥70), but more than 70% of the students got score equal or above 70. It means that the criteria of the research success were fulfilled.

The Students’ Classroom Participation

There were five meetings conducted during the research. The first meeting was conducted on July 14, 2020 from 09.00 a.m. to 11.00 a.m. In this meeting, all students were participated in the pre-test. The result was that there were only 9 (33.3%) students who got score ≥70. After getting the pretest result, the first cycle of the research was started. The cycle consisted of two meetings. The first meeting of this cycle (meeting 2) was conducted on July 15, 2020 from 08.00-11.00 and the second (meeting 3) was on July 16, 2020. All students joined the classes. They were taught how to comprehend descriptive texts by using mind mapping. How mind mapping works in reading comprehension of descriptive texts were explained to the students. Among the 27 students, there were 16 students (59.25%) who listened to the explanation, did practice seriously, and asked and responded to questions. The students’ participation belongs to the category of fair.

In the next day (meeting 3), the students were tested to have their own mind mapping of the descriptive texts that had been shared to them before answering the comprehensive questions. The result was that the 16 students (59.25%) who were actively involved in the teaching and learning process previously were able to have the correct mind mapping which made them able to comprehend the descriptive text. The students were able to correctly answer the comprehensive questions related to the text. From this meeting, it was concluded that the criteria of the research success formulated had not been achieved because there were only 16 students (59.25%) able to employ mind mapping as it should be. Therefore, the research was continued to cycle 2.

Cycle 2 was conducted in two meetings which were then called as meeting 4 and meeting 5. Meeting 4 was on July 20, 2020 from 09.00 a.m. to 11.00 a.m. The meeting was used to re-explain how to employ mind mapping in comprehending descriptive texts. In this meeting the students were trained more to employ the mind mapping while reading other descriptive texts that were different from what they had before.

From the observation, it was found that the number of students who were actively
involved in teaching and learning process improved. There were 20 students (74.1%) who listened to the explanation, did practice seriously, and asked and responded to questions. It means that the students’ participation was good. Then, meeting 5 was conducted on July 21, 2020 which was used for posttest. The result was that there were 20 students (74.1%) got score equal or above 70. Finally, the criteria of the research success were met and the research was stopped.

**DISCUSSION**

Improving students’ achievement in reading comprehension of descriptive texts and improving students’ participation achievement in teaching and learning process were successfully reached by employing mind mapping. Mind mapping activates the students’ brain as a whole, fixes the mental tangled of the students, makes the students focus on the main explanation, helps to show the relationship between the separated parts of the texts, gives clear description wholly and specifically, and lets the students group the concept and compare it (Purwoko, 2013). Mind mapping technique also train students to be able to organize the relationships and link between ideas and information they are reading. As a result, the students will be easier to remember the information and the ideas (Al-Otaibi, 2016; Haryadi, Corebima, & Ibrohim, 2018). Furthermore, by employing mind mapping in reading activity, the students became more creative. They designed colorful mind mapping in different styles. Besides, it was also found that the students could automatically strengthen their memory in recalling the information they have known. In other words, mind mapping can become one of the alternatives for teachers to improve students’ creativity, and memory (recalling the information) (Meier, 2007) which finally encourage the students to learn and improve their interest.

In addition, when mind mapping technique is employed by the students in reading comprehension of descriptive texts, it was easier for them to increase their grades which can be seen from the results of each test administered. The findings showed that the increase of students’ reading comprehension through mind mapping techniques is significant. It can be seen that equal or above 70% students could identify the content of each structure of text: identification and description which were mentioned previously. Through mind mapping technique, students can show the relationship on each separated part of information (Buzan, 2016).

4. **CONCLUSION**

From the research results, it can be concluded that mind mapping successfully improve the 8th graders’ reading comprehension of descriptive texts as well as their participation in teaching and learning process at State Islamic Junior High School in Tanjungpinang in academic year 2020/ 2021. Mind mapping is a technique used to easily understand how the elements of complex structures are connected. In reading comprehension of descriptive texts through mind mapping, the students’ knowledge about the text structure contributes to how students design their own mind map. Therefore, it is suggested that English teachers employ mind mapping in teaching English. Finally, for future researchers, it is recommended that they conduct researches on mind-mapping in other language skills with different research methods.
REFERENCES

Al-Otaibi, W. H. (2016). The Effectiveness of Non-Hierarchal Electronic Mind Maps Strategy in Developing Visual Thinking Skills in the Course of Science among Primary Stage Female Students. Journal of Educational and Psychological Sciences, 17(2), 117–143.

Arikunto, S. (2009). Penelitian Tindakan Kelas. Jakarta: PT. Bumi Aksara.

Butt, D., Fahey, R., Feez, S., Spinks, S., & Yallop, C. (2000). Using Functional Grammar: An Explorer’s Guide (2nd). Sidney.

Buzan, T. (2016). Buku Pintar Mind Map. Jakarta: PT. Gramedia Pustaka Utama.

Derewianka, B. (1990). Exploring How Text Work. Australia: Primary English Teaching Association.

Emilia, E., & Christie, F. (2013). Factual Genres in English: Learning to Write, Read, and Talk about Factual Information. Bandung: Rizqi Press.

Gerot, L., & Wignel, P. (1994). Making Sense of Functional Grammar. NSW: Antipodean Educational Enterprise.

Griffiths, C. (2020). How Mind Mapping Boosts Your Creativity. Retrieved from https://innovationmanagement.se/2020/05/22/how-mind-mapping-boosts-your-creativity/

Hariyadi, S., Corebima, A., & Ibrohim, S. Z. (2018). Contribution of Mind Mapping, Summarizing, and Questioning in the RQA Learning Model to Genetic Learning Outcomes. Journal of Turkish Science Education, 15(1), 80–88.

Jones, B. D., Ruff, C., Snyder, J. D., Petrich, B., & Koonce, C. (2012). The Effects of Mind Mapping Activities on Students’ Motivation. International Journal for the Scholarship of Teaching and Learning, 6(1), 1–21.

Kalyanasundaram, M., Abraham, S. B., Ramachandran, D., Jayaseelan, V., Bazroy, J., Singh, Z., & Purty, A. J. (2017). Effectiveness of Mind Mapping Technique in Information Retrieval Among Medical College Students in Puducherry-A Pilot Study. Indian Journal of Community Medicine, 42(1), 19–23.

Kerf, G. (2000). Eksposisi dan Deskriptif. Jakarta: Gramedia.

Kernan, W. D., Basch, C. H., & Cadorett, V. (2018). Using Mind Mapping to Identify Research Topics: A Lesson for Teaching Research Methods. Pedagogy in Health Promotion, 4(2), 101–107.

Knapp, P., & Watkins, M. (2005). Genre, Text, Grammar. Sidney: University of New South Wales Press Ltd.

Kulsum, N. U. (2018). Mind Mapping Model in Increasing Students’ Creativity and Learning Outcomes. Classroom Action Research Journal, 2(3), 127–132.

Meier, P. S. (2007). Mind-mapping-A Tool for eliciting and Representing Knowledge Held by Diverse Informants. Guildford: University of Survey.

Menteri Pendidikan dan Kebudayaan Indonesia. Tentang Perubahan atas Peraturan Menteri Pendidikan dan Kebudayaan Nomor 24 Tahun 2016 Tentang Kompetensi Inti dan Kompetensi Dasar Pelajaran pada Kurikulum 2013 Pada Pendidikan Dasar dan Pendidikan Menengah. Pub. L. No. 37, 294 (2018). Indonesia.

Nafisah, N., & Kurniawan, E. (2007). Writing: English for General Communication. Bandung: UPI Press.

Presnyakova, I. (2011). Systemic Functional Analysis of Elementary
School Language Arts Textbooks. Unpublished Thesis, College of Liberal Arts.

Purwoko, S. (2013). *Buku PIntar Mind Map*. Jakarta: Gramedia Pustaka Utama.

Silabus SMP/MTS. (2019). Tanjungpinang.

Suyanto, A. (2015). The Effectiveness of Mind-Mapping in Improving Students’ Writing Skill Viewed from Their IQ. *Indonesian Journal of English Education (IJEE)*, 2(2), 101–119.

Wilson, K., Copeland-Solas, E., & Guthrie-Dixon, N. (2016). A Preliminary Study on the use of Mind Mapping as a Visual-Learning Strategy in General Education Science classes for Arabicspeakers in the United Arab Emirates. *Journal of the Scholarship of Teaching and Learning*, 16(1), 31–52.