



The Implementation of E-Mind Mapping in Teaching Reading at Senior High School

Penerapan E-Mind Mapping Dalam Pengajaran Membaca Di Sekolah Menengah Atas

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui persepsi guru dan siswa terhadap e-mind mapping dalam pembelajaran membaca, penerapan e-mind mapping, dan dampaknya terhadap prestasi membaca siswa. Penelitian ini merupakan penelitian kualitatif dengan guru sebagai subjek dan siswa dari setiap kelas yang diajar oleh guru. Instrumen yang digunakan adalah lembar wawancara dan observasi. Panduan wawancara diberikan kepada guru untuk mengetahui persepsi, implementasi, dan dampak e-mind mapping dalam pengajaran membaca. Lembar observasi checklist untuk mengetahui implementasi e-mind mapping dan prestasi membaca siswa berdasarkan observasi aktivitas siswa pada saat pembelajaran berlangsung dan diisi oleh peneliti sebagai observer. Berdasarkan hasil analisis data diketahui bahwa persepsi awal guru tentang e-mind mapping dan setelah berdiskusi, akhirnya paham dan berpendapat bahwa semua siswa menerapkan e-mind mapping dalam pembelajaran di kelas dan mengimplementasikan tiga tahap e-mind mapping, mind mapping yaitu kegiatan pertama, kegiatan utama, dan kegiatan penutup. Selanjutnya diperoleh hasil bahwa e-mind mapping memberikan dampak terhadap prestasi membaca siswa, walaupun dampaknya berbeda-beda pada setiap siswa. Siswa dengan penerapan e-mind mapping yang lebih baik memiliki dampak yang lebih baik pada prestasi membaca siswa.

Kata Kunci: e-mind mapping, implementasi, membaca

ABSTRACT

This research aims to determine teacher and student perception on e-mind mapping in teaching reading, the implementation of e-mind mapping, and their impact on students' reading achievement. This research is qualitative research with the teachers as subject and students from each class taught by the teacher. The instruments used were interview sheets, observation, and document. The interview guide was given to the teachers to find out perception, implementation, and the impact of e-mind mapping in teaching reading. Checklist observation sheet to find out the implementation of e-mind mapping and students' reading achievement based on observation of student's activities when learning takes place and it is filled by the researcher as an observer. Based on the results of data analysis, it was found that the teacher initial perceptions were about e-mind mapping and after discussion, finally understood and argued that all students implemented e-mind mapping in learning in class and implement the three stage of e-mind mapping namely first activity, main activity, and closing activity. Furthermore, the results obtained that e-mind mapping has an impact on students' reading achievement, although the impacts is different for each student. Students with better implementation of e-mind mapping have a better impact on students' reading achievement.

Keywords: e-mind mapping, implementation, reading

1. BACKGROUND

English is an obligatory subject in many countries. In Indonesia, English is tutored as an overseas language. It becomes a part of the varsity curriculum. It is a significant tool for the learners within the world era who would like to speak simply across nationalities for several years to come back (Harmer, 2002). In alternative words, English has necessary role in people's communication. In Indonesia, English is tutored in colleges as an overseas language. This subject is tested within the national test that shows the importance of this subject. There are four skills in learning English specifically speaking, listening, reading, and writing. Reading is one in all the language skills ought to be studied and down by students to urge info from the texts (Haerazi & Irawan, 2020). It was a language activity to attain information and knowledge. Reading is also taught at junior or senior high school in Indonesia. According to Imran, Firman, and Raudhatunnisa (2019), reading is an interactive process between a reader and a text. In this process, readers interact dynamically with the text as they try to elicit the meaning.

According to Maxom (2009), reading is one of the key skills in language learning. Reading skills reinforces other language skills such as speaking, listening, and writing (Haerazi, Prayati, & Vikasari, 2019). It is also a complex cognitive process of decoding symbols to construct or derive meaning. Snow (2002) asserts that reading is a means of language acquisition, of communication, and of sharing information and ideas. It is in line complex interaction between texts and readers is shaped by readers' prior knowledge, experiences, attitude, and language community. The reading texts also are shaped by the speakers of the target language culturally and socially situated (Haerazi, Vikasari, & Prayati, 2019). Therefore, the reading process requires continuous practice, development, and refinement.

Electronic mind mapping has the can be used to develop critical reading skill, improve learners' writing English, organize content, increase motivation towards learning English and develop the skill of reasoning and critical thinking (Siriphanic&Laohawiriyanon,2010). In addition, Faeqeh in his study revealed that the use of electronic mind mapping results in the considerable effect on reading comprehension. However, the research studies have not been known the effect of mind mapping on the students' reading

comprehension, especially on high and low achiever students.

Other researches revealed that the use E-Mind Mapping was more effective than traditional method. One of them was conducted by Mohaidat (2018). In his study he stated that using electronic mind mapping had led to higher comprehension among the experimental group than the control group who used the traditional method. Moreover, improvement of reading comprehension in experimental group due to using computerized mind mapping. He stated that with electronic mind mapping in the class, reading instruction can really impact teaching and learning process through its ability to adapt to the learning styles of different students.

Therefore, the aim of this research is wanting to analyze how to implementation of e-mind mapping in teacing reading.

2. LITERATURE REVIEW

2.1. Definition of reading

reading is the process of receiving and interpreting information encoded in language form via the medium of print. They also consider that reading to be a language activity, involving at some time or another all the cognitive processes related to language performance. Reading comprehension can be defined as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language (Snow: 2002). In this case, readers should not only be able to read the printed words but also build meaning by relating words. Further Djiwandono (2008) explained that reading belongs to receptive passive language skill. Readers are the receivers of explicit and implicit written information.

To be able to effectively get the meaning of the text, readers should fulfill three things: (1) identify and understand the words in the text or words recognition, (2) construct and understand the words, and (3) coordinate the words and interpret them so that there is an accurate understanding. This is in line with Nation (2001) and Richard and Bamford (as cited in Harmer (2001) who stated that a text can be understood by the reader when it is written using specialized vocabulary and grammar that exist at the level of the readers 'ability. In addition, Grabe (2010) claimed that

understanding main ideas and exploring the organization of a text are essential for good comprehension. Considering these, reading comprehension is apparently a complex activity in which readers should not only possess a certain amount of vocabulary and grammar mastery and master the skills of finding the main ideas but also engage in processing the phonological, morphological, syntactic, semantic, and discourse levels. Therefore, to make sure that a student can read effectively, the teacher includes his understanding of the basic ideas, expressions, idioms, phrases in context, grammar, supporting ideas, and vocabulary in the evaluation of reading skills.

2.2. Types of Reading

According to Patel and Praveen (2008), There are some types of reading such as Intensive reading, Extensive Reading, Aloud Reading and Silent Reading. Intensive reading is type of reading that focus on idiom and vocabulary that taught by the teacher in the classroom and that idiom and vocabulary is exist in poem, poetry, novel, or other source. For example: The students focus on linguistic or semantic details of a reading and focus on structure details such as grammar. According to Patel and Praveen, there are several characteristics of intensive reading. The first is intensive reading helps the students to develop their active vocabularies. The second is in intensive reading the teacher as a main role. It is because the teacher as a guide so that he/she has a main role. The third, it develops linguistic items. The fourth is intensive reading means reading aloud. The students pronounce what they are reading. Last not least, in intensive reading, intonation and rhythm are connected. Based on explanations above, it can be concluded that intensive reading is a kind of reading which emphasized on deep understanding. The students are intended can find the detail of information which they got from reading.

Extensive Reading is types of reading involves learners reading texts for enjoyment and to develop general reading skills. For example: The students read as many kinds of books such as journals, newspapers, and magazine as you can, especially for pleasure, and only needing a general understanding of the contents. There are few characteristics of extensive reading. The first, it could help students to develop to active vocabulary. The active vocabularies could be acquired by every word which is read by the students. The second, extensive reading is silent reading. It means

when the students reading the text, they do not pronounce it. Next, in extensive reading the subject matter is emphasized. Aloud reading are reading by using loud voice and clearly. For example: Reading poetry, dialogue, and other type of text. Silent reading activity is meant to train the students to read without voice in order that the students can concentrate their attention or through to comprehend the texts. For example: The students reading a text by heart.

2.3 The purpose of reading

1. Reading to search for simple information

Reading to search for simple information is a common reading ability, though some researchers see it as a relatively independent cognitive process. It is used so often in reading tasks that is probably best seen as type of reading ability.

2. Reading to skim quickly

Reading to skim quickly is a common part of many reading task and a useful skill. It involves, in essence, a combination of strategies for guessing where important might be in the text, and then using basic reading comprehension skills on those segments of the text until a general idea is formed.

3. Reading to learn from text

Reading to learn typically occurs in academic and professional contexts in which a person needs to learn a considerable amount of information from a text, it requires abilities to remember main ideas, recognize and build rhetorical frames and link the text to the reader base.

4. Reading to integrate information

Reading to integrate information requires additional decision about the relative importance of complementary, mutually supporting or conflicting information and likely restructuring of a rhetorical frame to accommodate information from multiple sources.

5. Reading to write and reading to critique texts

Reading to write and reading to critique texts may be task variants of reading to integrate information. Both require abilities to compose, select, and critique information from a text.

6. Reading for general comprehension

Reading for general comprehension when accomplished by a skilled fluent reader, require very

rapid and automatic processing of words, strong skills in forming a general meaning representation of main idea, and efficient coordination of many processes under very limited time constraint.

2.4 Definition of E-mind mapping

According to Jbeili (2013) Electronic mind map is one of the active learning strategies and it is effective tool that enhance memory, retrieval of information and generate new creative ideas as it works at the same steps of human mind which activate both human spheres and arrange information in a way helps the mind to read and remember information instead of linear thinking. Electronic mind map looks like free creative sketches based on specialized computerized programs and consists of branches radiating from the center lines using words and symbols, colors, and are used to represent relationships between ideas, information and require spontaneous thinking during creating. According to Stankovic Besic, Papic & Aleksic (2011) E-Mind Mapping is more attractive, faster to produce and more professional, therefore E-Mind Mapping strategy can be effective in inducing reading comprehension.

2.5 Advantages of E-Mind Map

E-mind mapping is a good technique for brainstorming because ideas can be captured as they are suggested, without worrying about where they fit in a hierarchy. Once all the ideas have been captured, they can be grouped and prioritized. Compared with traditional outlines and presentations, mind maps offer more convenient advantages. Murley (2007) explain that the radiating design of a mind map keeps the main topic or idea central, with all its major subtopics close to it. Similarly, sub-subtopics stay close to their topics. The arrangement keeps the big picture in focus and makes relationship and connections easier to see.

3. RESEARCH METHODOLOGY

3.1. Research Design

Qualitative research is research that explains and analyzes the phenomenon, events, social activities, attitudes, beliefs, perceptions, thoughts of individuals or groups. The design of this research is descriptive qualitative, where researcher presents data on to words and descriptive form. Like Gay (2016) stated that descriptive qualitative method used to determine and describe the way things are test analysis. The purpose of qualitative study is to describe the empirical reality of the phenomenon in depth, detailed,

thorough. This research used qualitative method, it means that the data collected is not in the form of number, but the data gained from interview manuscripts, field note, video recording, and observation checklist.

3.2. Research Instrument

In this research, there are three instruments that used by the researcher; they are observation checklist and semi structure interview (interview guides). Observation is a complex research method because it often requires the researcher to play several roles and to use several techniques, including her/his five senses, to collect data (Baker, 2006). gay et al (2012) stated that semi-structured interview was not get answers to predetermined question but rather to find out where the participants come from and what they had experienced while structuring interview, the researcher has specific set of questions that elicit specific information from respondents. It allowed the researcher to ask all the information about the same series of questions.

3.3. Data Analysis

In this research, the writer uses Miles and Huberman's theory in analyzing the data. The researcher will use theory of Miles, Huberman & Saldana (2014) concept, where the data analysis can be defined as consisting as four current flows of activity that is data collection, data reduction, data display, and conclusion.

4. FINDINGS AND DISCUSSION

4.1. Findings

research findings consist of data taken from the implementation of e-mind mapping in teaching reading, the teachers', and students' perception of e-mind mapping in teaching reading, and the impact of the implementation of e-mind mapping on the students' in teaching reading.

1. The Teachers' and students' perceptions of e-mind mapping in Teaching reading

The first interview was to know the early perception of teachers in e-mind mapping about the indicator of absorption in aspects the teachers was used to hearing the term metacognitive strategy and indicator understand/ comprehend in aspect the teacher understands about e-mind mapping. The early perception of teacher in aspects used to hearing the term e-mind mapping as follows:

Extract I:

"ee, Menurut saya metode e-mind mapping itu merupakan salah satu teknik proses pembelajaran yang membantu proses berpikir peserta didik karena menggunakan ee.. apa namanya teknik grafis yang berasal dari pemikiran anak peserta didik tersebut"

"ee, I think the e-mind mapping method is one of the learning process techniques that help the thinking process of students because it uses ee... what is the name of the graphic technique that comes from the students' thoughts"

the aspects of the teachers used in hearing the term e-mind mapping were that the teacher was familiar with the term e-mind mapping. Then, the results of the first question about the teacher's understanding of e-mind mapping was the teacher know about the term of e-mind mapping

2. The Implementation of E-mind mapping on the students' in teaching reading

The researcher determined the teacher's activities in 3 parts. That are (1) first activity, (2) Main Activity, and (3) closing activity. According to his interview on the teacher perception in the previous part. He states that before entering the class, he has a plan that will be given on the students based on the module; or internet. The results from the observations can be explained as follows:

a. First Activity

The results of observations in the classroom can be explained as follows:

Extract 1:

"The teacher writes on the whiteboard about the learning material and objectives to be achieved"

The data above shows a set of goals and directed attention. When the teacher wrote down the objective of the learning, it can help the students to directly set the goals of the learning that they will learn and achieve.

b. Main Activity

Extract 3:

T: "after sir explains, I will call one by one to explain the results of your discussion in front of the class. So, prepare your mind mapping concept carefully"

S: "Yes sir"

T: "For example, later we want to make material about descriptive text house (while pointing to application mind mapping in android) you can write the main

topic in the middle, after that in the next branch we will share the vocabulary that you can match the class of words such as noun, verb, adverb, adjective, pronoun, preposition, conjunction, dan interjection. If you want it to be better, after we write the English, write the Indonesian on the side and you can also make sentences so that you can remember better"

S: Iye sir

The data shows that the students wrote down the information they got from the teacher's explanation. But on the other hand, the data also shows that teachers are more dominated than students.

c. Closing Activity

In this session, the teacher has the closing activity technique. The teacher doing the reflection of the knowledge that has been received by the students to request some conclusion of the material from the student and give some homework.

Extract 7 :

T : Today we end our learning here, because the bell has not already sounded there are some students still do the duty that sir gave that have not been completed work, you can do it at home, we will discuss the next meeting about this material

S: Yes sir

T: Maryam, make conclusions about today's learning outcomes

3. Impact of using e-mind mapping in teaching reading

The data of observation in the classroom about the impact of e- mind mapping on students' reading achievement from observation of the students' activities in the classroom, as follows:

a. Remembering

Extract 8:

T: Nah nak, kelompok A, bisa sebutkan yang termasuk identification of the text? Jika ada yang bisa menjawab bisa angkat tangan

(now group A, can anyone mention which is identification of the text? If you want to answer please raise your hand!)

S1: Saya pak, identification berada d paragraph 1 pada bacaan descriptive text yang berjudul " the gift"

(me sir, identification on the paragraph 1 descriptive text in the tittle "the gift")

T: "betul sekali, ada yang lain?"

(good, anyone else?)

b. Understanding

At the next meeting after the students were able to remember the main idea of the descriptive text, the students were able to distinguish the structural of the text with a brief and clear explanation from the teacher using the help of e-mind mapping media. The learning process uses e- mind mapping media. especially for students who have difficulty to understanding reading text, teacher is strongly advised to use this e-mind mapping media. This is statement supports Gore. According to him, e-mind mapping is part of the recording system, helps students stay involved in learning. reduces confusion, differentiates between essential and non- essential information, and increases memory when used as a daily review (Gore, 2004). Analyzing question can used by the teacher to enhance students' critical thinking skill. This question encourages students to break material into parts, describe patterns and relationship among parts. The key words of this question are analyzing, differentiate, distinguish, explain, and relate. This question categorized as high-level thinking questions.

c. Applying

From the student assignment, it can be concluded, students can get the main idea they get with the help of e-mind mapping correctly. In addition, in the previous first session, the teacher applied e-mind mapping media in the teaching and learning process.

d. Analyzing

The data shows that most of the students in the sciences class are very useful media after implementing e-mind mapping, and some students have improved. This statement supports Joseph and Hunter who stated that e- mind mapping has the potential to increase students' metacognitive activity and reduce shared learning helplessness.

e. Evaluating

When the teacher called and asked them to presentation one by one in front of the class. Researcher can conclude that students can understanding the reading text properly according into what they write on e-mind mapping. The evaluation of e-mind mapping in reading learning shows that the media is a good learning tool so that it can make it easier for students to understanding the text. But what makes people optimistic and wants to learn more is that students think they are not only learning from e-mind

mapping. E-mind mapping helps students access the general education curriculum by organizing and gathering complex information.

f. Creating

At the final stage of learning, students have memorized a lot of vocabulary and can make sentences with the vocabulary they memorized beforehand so they can continue to remember both writing and pronunciation.

4.2. 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 e-mind mapping. E-Mind mapping activates the students' brain, 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). E-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; Hariyadi, Corebima, & Ibrohim, 2018). Furthermore, by employing E-mind mapping in reading activity, the students became more creative. They designed colorful E-mind mapping in different styles. Besides, it was also found that the students could automatically strength then their memory in recalling the information they have known. In other words, E-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.

The perception of students on using E-mind mapping are positive, for example to know the points of the information from the textbook; make students easier in getting detail information; give clear definition of the teacher explanation by providing some branches in E-mind mapping; to give presentation is very useful especially for college student; consider some points and keyword; make student remember what they want to learn about the concept.

In addition, all of them agree if E-mind mapping should be applied in the classroom in the future.

Because for them mind map is very useful for English department students, such as it has the keywords; it can change the way teacher and students in trying to deliver or explaining the subject; it is one of the best ways to explain more about the subject; and it develop students cognitive and learning process become more effective and efficient.

Although they agree to implement E-mind mapping in the classroom, but they provide some suggestions toward it such as the teacher must be more creative in preparing learning material and make the E-mind map looks more attractive to get students interest in that lesson; use the mind map only for college student; teacher should use other media or combined e-mind map with power point or press and so on to looks more interest.

Despite e-mind map has many benefit and the students agreed to use in the class, yet the participant think that e-mind map also has some weaknesses such as its too broad to be describe for the students if the learning material is too long; it sometime only benefit for smart students; it's not clear enough for some students; the use of e-mind map could prevent students to derive additional information about subject that being learned since e-mind mapping only provide significant points which are directly related to the subject.

5. CONCLUSION

As to answer the research problem and objectives stated in chapter 1, the general perception of students who still think English is difficult to learn. So, it is rare to find students who like to learn English. Especially, when it comes to discussing types of text, such as narrative text that is usually a long one. Students are lazy to read the entire text, as a result, students do not know what the text contains. Even though reading is a basic skill in English. The level of student's cleverness is varying. The teacher interviews regarding teacher perception about the implementation of e-mind mapping in teaching reading, it was found that the teachers are required to know how each student's learning style is and can teach in a fun way. To achieve student understanding, teachers must be creative and innovative in teaching by choosing the right learning method. By making a mind map, students can summarize the narrative text in their language. Therefore, the text is easy to understand and increases

students' interest in reading and learning about English.

All in all, mind maps undeniably gave a positive influence on students' reading comprehension through processes in making the map. The processes are repetitive reading, selection to essential information, information classification and organization, identification on how the concepts are related to each other, and presentation through visual arts and keywords. By going through all those steps, all participants admitted their understanding on materials discussed in class improved. Even though it needs a quite long process, they perceived mind mapping helps them pass decoding process in reading to gain both in a word level and text level comprehension.

Student who studied descriptive text under e-mind mapping technique showed great reading interest. Students learnt through mind mapping technique were more interested to read than those who learnt through conventional method. Thus, using mind mapping technique in teaching reading comprehension is more effective and more interesting with e- mind mapping to enhance students' reading comprehension achievement of the second grades of SMAN 10 Sinjai.

REFERENCES

- Brown, G. A. & Edmondson, R. (1985). *Asking questions in Classroom teaching skills*. London: Croom Helm.
- Djiwandono, M.S. (2008). *Tes Bahasa: Pegangan Bag Pengajar Bahasa*. Jakarta: Indeks.
- Gay, Lorraine and Geoffrey E. Mills. (2016). *Educational Research Competencies for Analysis and Applications*.
- Haerazi, H., & Irawan, L. (2020). *The effectiveness of ECOLA technique to improve reading comprehension in relation to motivation and self-efficacy*. International Journal of Emerging Technologies in Learning (IJET), 15(01).
- Haerazi, H., Prayati, Z., & Vikasari, R. M. (2019). *Practicing contextual teaching and learning (CTL) approach to improve students' reading comprehension in relation to motivation*. English Review: Journal of English Education, 8(1), 139-146.
- Harmer, J. (2002). *The practice of English language teaching*. Longman: Pearson Education
- Harvey, Stephanie, (2000) *a literacy consultant and staff developer for the Denver-based Public Education and*

- Business Coalition. She coauthored, with Anne Goudvis, Strategies That Work: Teaching Comprehension to Enhance Understanding.*
- Imran, F., Firman, E., & Raudhatunnisa, S. (2020). *Applying think-talk-write (TTW) in the Journal of Languages and Language Teaching*, 7(1), 57-63. DOI: <https://doi.org/10.33394/jollt.v7i1.1439> teaching of reading comprehension in relation to students' critical thinking skills. JOLLT
- Jbeili, I.M. (2013). *The Impact of Digital Mind Maps on Science Achievement Among Sixth Grade Students in Saudi Arabia*. *Procedia – Social and Behavioral Science*, 103, 1078-1087
- Maxom, M. (2009). *Teaching English as a foreign language for dummies*. Chichester and West Sussex: John Wiley and Sons Ltd.
- Miles, Huberman & Saldana. (2014). *Qualitative Data Analysis (second edition)*. SAGE Publication.
- International Educational and Professional Publisher. London New Delhi.*
- Mohaidat, Mohammad. (2018). *The impact of electronic mind maps on students' reading comprehension*. Canadian center of science and education 11.no.4
- Simsek, A. & Kuru-Gonen. (2020). *Raising Awareness of EFL Teachers on Questioning Types and Pedagogical Goals: An analysis through Classroom Modes*. *Language Teaching and educational Research (LATER)*.
- Siripanich, Panatda. (2010). *Using Mind Mapping Technique To Improve Reading Comprehension Ability of that EFL Universitas Students*. Retrieved from <https://fslibarts.psu.ac.th/research-convenceproceedings2astiche.4pfo.01.pdf>.
- Snow, C. (2002). *Reading for understanding*. Santa Monica, Arlington and Pittsburgh: RAND