

Autonomous Learning Material with Mind Mapping for EFL University Students: A Study of Extensive Reading

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Abstract

The current educational paradigm has changed, shifting from teacher-centered to student-centered. Self-directed learning is now one of the most discussed topics. Therefore, a methode is needed to improve students autonomous learning. This study aims to explore the use of Mind Mapping media as a learning tool to teach broader reading skills, to improve memory, and note-taking skills. The present study used a qualitative case study approach based on self-directed learning. Data were collected through observation, semi-structured interviews with four EFL students consisting of two female and two male students at a university in Indonesian higher education getting involved in an extensive reading class. The results show that students' learning attitude is positively affected by autonomous learning with Mind Mapping. In other words, this method gives students the opportunity to experiment and take full responsibility for their own learning process. So that it can open the role of student creativity. Finally, The implication is discussed in this study.

Keywords: Autonomous Learning Material; EFL Students; Extensive Reading; Mind Mapping.

INTRODUCTION

Mastery of English as a foreign language (EFL-English as a Foreign Language) is becoming a very important skill for students in various countries in the era of growing globalization. English language skills are essential for communicating and obtaining professional and scientific information, reading should be practiced by everyone, both inside and outside the classroom. as well as reading thoroughly. ER is an approach where students are exposed to a lot of interesting reading material to enjoy and can provide input outside of class hours. Ateek, (2021) says that students choose readings based on their linguistic abilities. Therefore, a comprehensive reading course is similar to out-of-class learning or self-directed learning, where students are given the freedom to choose their own preferred reading to make it easier to understand. In line with that Wahyuningsih & Lailis Sa'adah, (2022) in her research explained that when readers understand the text

and relate it to previous knowledge, their interest in reading can increase. This is in line with the report Khotimah et al., (2019) which states that teachers should be able to support their students to become independent learners in the 21st century. In line with the theory Satriani et al., (2023) students who only depend on the teacher tend to become passive learners because they have no desire to learn on their own. However, the challenge of making these extensive reading activities more structured and independent for EFL students remains a challenge.

However, over the past three years, autonomous learning has become one of the most important issues in language learning (Tsai, 2021). Autonomous learning is when students have the desire, ability, and capability to organize, take responsibility, or control their own learning. According to Hsieh & Hsieh, (2019), autonomous learning outside the classroom is an important component that determines the quality of a student's learning performance. Tsai, (2021) states that the type of teaching used can achieve the goal of helping learners achieve their linguistic and communicative goals depends largely on how much motivation and ability students have to learn. One of them is mind mapping as a learning approach. Around the world, mind mapping has become popular in classrooms. Many books are written for teachers explaining how to use it (Gavens et al., 2020). According to Vu & Peters, (2022), students who use the visual mind mapping method are more likely to be good readers and critical thinkers. Therefore, Mind Maps-also known as mind maps-can be used to explore one's knowledge and perspective on a topic. In addition, it can be used as a tool to aid memory and note-taking skills. In learning, mind mapping is essential to help students understand lessons, whether inside or outside the classroom. In addition, mind maps help students visually organize information, which can improve retention and understanding of the material learned. By mapping out concepts and ideas, students can see how different pieces of information relate to each other, which helps them remember and apply what they know.

Students' attitudes are a component of autonomous learning development, according to some researchers. based on the research conducted Wahyuningsih & Ludfiyani, (2024) The most important factors in students' learning difficulties is their social background. In line with that Wang & Zhang, (2022) stated that the independent learning behavior of foreign language learners is dominated by needs, interests, and learning methods. As stated by Ariebowo, (2021), students in Indonesia generally have a moderate level of learning autonomy. Patimah & Sumartini, (2022) stated that learners' learning independence in online learning requires students' motivation, a sense of wanting to learn on their own, responsibility, and the belief that they can solve problems. These factors, as well as poor teaching methods and lack of reading skills. Therefore, this study will evaluate the autonomous learning tool that has been developed by researchers and expand its questions to meet the needs of the study. These questions will relate to how students' attitudes towards using Mind Mapping in deep reading learning to improve their autonomous learning. In addition, using mind maps in self-directed learning encourages creativity and critical thinking, prompting them to look at different possibilities and find creative solutions to the problems they face. Furthermore, using mind maps as a learning tool can make students more engaged and involved in the learning process, which in turn can increase their desire to learn more.

METHOD

Participants

The researcher was interested in investigating learners' attitudes toward learners' autonomy among English Education students through the usage of Mind Mapping media in learning. Four English education students, ranging in age from eighteen to twenty-one, participated. They were enrolled in the second semester of the 2022-2023 school year in a general English course. They were asked to read, fill out, and sign the informed consent form, which stated that their participation in the study was optional, in regards to the study's ethics. Additionally, they were free to stop taking part in the study at any time. Their demographics are displayed in the following table [Table.1].

Table 1. Demographic characteristics of the participant

Sex	Student			
	Male		Female	
Demographics characteristics of participants	Student #1	Student #2	Student #3	Student #4
Age	19	21	18	19
Educational background	Senior high school	Senior high school	Senior high school	Senior high school
Semester	3rd semester	3rd semester	3rd semester	3rd semester

Treatment and Procedure

The researcher looked at how the visual Mind Map strategy improved participants' critical thinking skills. Mind maps are an important component in student attitudes, according to some researchers Wang & Zhang, (2022). This suggests that the visual mind mapping strategy can help achieve classroom objectives that require students to use critical thinking during the learning process. In this study, the qualitative method used was semi-structured interviews with several respondents; respondents were given direct questions. The question instrument consists of students' understanding of independent learning with mind maps, students' efforts to support independent learning with mind maps, how independent learning with mind maps impacts students, and educators' support. In other words, this method gives students the opportunity to experiment and take responsibility for their own learning.

Both research with one subject and a selected sample with many subjects can use methods such as interviews, conversations, observations, and text analysis (Asbari et al., 2020). In this study, phenomenology uses mind mapping to thoroughly study students' perspectives on shared experiences. We found patterns and themes for the research questions. Among the issues that emerged from the

interviews were students' perceptions of self-directed learning with mind maps, students' efforts to encourage self-directed learning with mind maps, the influence of self-directed learning methods with mind maps, and stimuli factors that influence self-directed learning with mind maps. Furthermore, the interview data will be presented to determine during the data drawing and verification process, the emerging themes and subthemes are confirmed by confirming other evidence to ensure that the conclusions made are consistent. Finally, the first two themes were confirmed and verified. To guarantee the clarity and accuracy of the data, each participant was given exclusive access to the interview transcripts and asked to read them thoroughly. The pattern coding and meaning-making strategy proposed by (Fadli, 2021) was used for data analysis.

FINDINGS AND DISCUSSION

The research question was to find out how self-directed learning with mind maps is implemented in a wide reading study. The two themes that emerged in this study, along with the supporting data, were (1) the application of self-directed learning with mind maps, and (2) the stimuli that influence self-directed learning with mind maps. These themes suggest ways of self-learning with mind maps and strategies to improve the quality of autonomous learning in the case of extensive reading.

1. Implementation of Autonomous Learning With Mind Mapping

The The implementation of autonomous learning with mind maps was the first theme to emerge from the interview data. Analysis of the interview data resulted in this subtheme of findings.

Table.2 Example of data analysis

Emergent Themes	Data	Source
Implementation of autonomous learning with mind maps	showed some examples of innovative data analysis. These themes include the application of autonomous learning with mind maps and the application of the mind mapp method to students' semi-structured interviews to provide them with information they may need in the future [teaching objectives] . Since the method serves as a motivational tool [challenge] , I believe that it should be used for self-directed learning. Mind mapping can enhance learners' creativity and help them remember facts, figures, and formulas. Please incorporate the mind mapping method into learning [policy] .	Semi-structured Interview

Stimuli factors for autonomous learning with mind maps	Encouragement or learning stimuli (supportive) factors. There are a number of push or stimuli factors for the implementation of autonomous learning with mind maps. As mind mapping teaching requires complete focus (supportive) , we are in dire need of materials and environment.	Semi-structured Interview
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The use of autonomous learning with mind maps includes (1) students' understanding of autonomous learning with mind maps, (2) students' efforts to support it, and (3) how autonomous learning with mind maps impacts students.

1.1 Students Perception of Autonomous Learning with Mind Mapping

Students think differently about autonomous learning with mind maps. How the students perceive it currently is shown in the following interview data:

Student vignette 1: Students' Perception of Autonomous Learning with Mind Maps

Student #1

I think autonomous learning using mind maps can summarize a very large chapter into several points that are simpler and more detailed, especially so that it becomes easier to understand. (Student #1, In-depth interview, November 25, 2023, Researcher Translation)

Student #2

I think it can be one of the ways that students can easily understand information or chapters and it can affect a person to be more intelligent, creative and effective. (Student #2, In-depth interview, November 27, 2023, Researcher Translation)

Student #3

With autonomous learning using mind maps, I think it is very suitable to use in learning because it can shorten the time of learning and we don't even need to record many things, just by listing the points. (Student #3, In-depth interview, November 27, 2023, Researcher Translation)

Student #4

In my opinion, autonomous learning with mind maps is an effective way to understand different concepts. (Student #4, In-depth interview, November 28, 2023, Researcher Translation)

Students agree with autonomous learning with mind maps, as shown by the interview data. Firstly, students said that mind maps can shorten and summarize a very long chapter into simpler and more detailed points, especially for easier understanding. Secondly, students recognize that mind maps are one of the ways to make self-directed learning easier for students to understand the material and have an impact on improving intelligence, creativity, and efficiency. Mind mapping is a strategy for note-taking that is creative, effective, and will literally map the thoughts of learners (Phanata, B.Ed, M.TCSOL & Suci, 2022). Finally, students said

that mind maps are a great learning method for understanding multiple, different, and complex concepts. Therefore, students will more easily understand the material by using the mind mapping method in independent learning.

1.2 Student Efforts to Encourage Autonomous Learning with Mind Mapping

The findings confirm that what students have done to foster their autonomous learning is included in good efforts as reflected in the following interview data.

Student Sketch #2: Student Efforts to Encourage Independent Learning with Mind Maps

Student #1

The effort I make to learn is to look for alternatives or the easiest way to learn extensive reading, such as using mind maps is a very simple and effective way. (Student #1, In-depth interview, November 25, 2023, Researcher Translation)

Student #2

My efforts in terms of autonomous learning using this mind map by reading repeatedly the book that I will make into a mind map in order to better understand the material and make it easier to make mind mapping. (Student #2, In-depth interview, November 27, 2023, Researcher Translation)

Student #3

When applying autonomous learning with mind maps, I will recognize the text first so that the effort to make the mind map can be made efficiently and easily when read and understood for sure. (Student #3, In-depth interview, November 27, 2023, Researcher Translation)

Student #4

The effort that I usually do is to often make several examples of mind maps or important points in learning the material so that when learning it can make it easier for us. (Student #4, In-depth interview, November 27, 2023, Researcher Translation)

With this mind map, students try autonomous learning in different ways. According to (Audhiha et al., 2022), giving students the opportunity to participate in various learning activities will make learning more meaningful. This will allow students to demonstrate their abilities both in the classroom and outside the classroom. The data collected from the first interview shows that students are involved in finding alternative methods or the easiest methods to learn to read thoroughly. One of the methods of autonomous learning by using mind maps is by reading the book repeatedly and recognizing the text that will be put into the mind map to improve their understanding. This is in accordance with (Hamzah & Wahyuningsih, 2022) explanation that to create a Mind Mapp from a book, there are several things that must be considered, such as reading the text as a whole and understanding the type of text.

1.3 The Effect of Using Independent Learning Methods with Mind Mapping on Students

Autonomous learning must use a method, because the position of learning methods is as motivation (Hasriadi, 2022). One of the learning methods that is considered to be used to assist students in achieving learning objectives is to use the Mind Map learning method. This is shown from the following interview results.

Student Sketch #3: Effect of Self-Directed Learning Method with Mind Maps on Students

Student #1

The effect of mind map learning for me is that I become easier to understand a chapter of material and easier to re-explain the chapter. (Student #1, In-depth interview, November 27, 2023, Researcher Translation)

Student #2

Mind maps can help us show connections between separate pieces of information and get new ideas flowing in our brains. (Student #2, In-depth interview, November 27, 2023, Researcher Translation)

Student #3

The impact I feel when learning using mind maps, I feel helped when learning because this mind map can summarize what needs to be learned. (Student #3, In-depth interview, November 27, 2023, Researcher Translation)

Student #4

I find it easier to understand the material and I can connect a concept to the material better. (Student #4, In-depth interview, November 27, 2023, Researcher Translation)

Data from the interviews showed that students found the learning approach using mind maps very helpful. Students said that using the learning method makes a chapter of material easier to understand and easier to re-explain the chapter. In addition, the students said that by using the mind map method, they can show the relationship between different elements of information and incorporate new concepts into their brains. In addition, this mind mapping learning method can provide a summary of what students have to learn. This is a very good impact on learning. In addition, keep in mind that the purpose of the method is to help learning go well (Pratama et al., 2022) Therefore, students should be provided with supportive learning approaches. One example is a learning method that uses mind maps.

2. Stimuli to the Application of Autonomous Learning with Mind Mapping

The second theme selected from the interview data. What is meant by learning stimuli is everything outside the individual that encourages learning reactions or actions. The act or activity of learning caused by this stimulus factor is what creates the impetus or motivation to carry out learning activities. Materials and social environment are subthemes that emerged from the interview data.

2.1 Material

The first sub-theme that emerged from the interview data was materials. Materials that are too long or too difficult can cause difficulties for students in learning. However, according to (Anisa & Attamimi, 2023), meaningful learning materials allow students to learn, because students can recognize them. As reflected in the following interview data.

Student Sketch #4: Materials for Implementing Self-Directed Learning with Mind Maps

Student #1

In my opinion, all material can be made into mind maps even though the material is difficult because there must be sub-chapters and points that are simpler. (Student #1, In-depth interview, November 25, 2023, Researcher Translation)

Student #2

The sullied material is usually long material and a lot of pictures, so in my opinion not all material can be made into mind maps, the long material can also make boredom. (Student #2, In-depth interview, November 27, 2023, Researcher Translation)

Student #3

In my opinion, there are some that can be made into mind maps and some that cannot because there are also some materials that use pictures all depending on how much material is described. (Student #3, In-depth interview, November 27, 2023, Researcher Translation)

Student #4

Almost all material can be made into a mind map, there may be some difficult material but it can still be organized by looking for keywords from the theme that we will make into a Mind Mapping. (Student #4, In-depth interview, November 27, 2023, Researcher Translation)

Students said that all materials can be made into brain maps, even if the materials are difficult because they must have sub-chapters and simpler points. They also said that some materials are long and have many pictures, which shows that not all materials can be made into brain maps, as long materials can also be boring. More difficult subject matter makes students take longer to learn. In addition, more difficult subject matter requires more intensive learning activities (Utami & Cahyono, 2020). In addition, students said that a solid teacher can still organize the material by looking for keywords from the topic that we will make into a Mind Map to learn it. Thus, if the teacher only gives the keywords of the main theme of the topic to be studied, students can create Mind Map quickly, according to (Phanata, B.Ed, M.TCSOL & Suci, 2022). This is because students will actively look for topics that will be derivatives of the main theme and so on. Therefore, learning materials should be designed to encourage students to participate actively and intensively in their learning.

2.2 Environmental Atmosphere

The atmosphere of the learning environment has a positive effect on student learning concentration. The magnitude of the influence of the learning environment on learning concentration is shown by the results of the following interview data:

Student #1

Yes, because when I study I really need a quiet atmosphere in order to focus more on working on a mind map. (Student #1, In-depth interview, November 25, 2023, Researcher Translation)

Student #2

I think the environment can play an important role, as it can increase productivity when using mind maps for independent learning. (Student #2, In-depth interview, November 27, 2023, Researcher Translation)

Student #3

An atmosphere that supports creativity and free thinking really helps me to produce more effective mind maps for understanding and organizing information. (Student #3, In-depth interview, November 27, 2023, Researcher Translation)

Student #4

I think a calm and organized environment really helps me when I'm studying because it can increase my level of understanding. (Student #4, In-depth interview, 27 November 2023, Researcher Translation)

The data collected from the interviews show that students believe that they need a quiet atmosphere to be more focused while working on their mind maps. Learning, according to (Abidin, 2020), is a process of interaction between humans and their environment. This can be a person, a fact, a concept, or a theory. Students also said that the environment can play an important role as it can increase productivity when using mind maps for self-directed learning. The students also acknowledge that a quiet and organized learning environment is helpful as it can enhance students' understanding. Students believe that with a supportive environment, students will easily understand the material.

CONCLUSION

The results show that the Mind Mapping method for learning extensive reading can increase students' independence and help them learn. By using the Mind Mapping method in the teaching and learning process, students see the benefits and difficulties of using this method as an extensive reading learning material. The interview data supports this, as indicated by the fact that some students feel the Mind Mapping method helps them learn, making it easier for some students to understand the material. On the other hand, because the material is long and some students are slow learners, learning to use the Mind Mapping method to learn reading becomes difficult. Therefore, to improve students' autonomous learning, especially in learning to read, more practice is needed to make students familiar

with the Mind Mapping method. The researcher also found that students felt positive effects after using the Mind Mapping method. They can learn concise material by using it, making learning more interesting and making students understand what they learn faster.

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