

The Effect of MindMeister Application on the Students' Engagement and Achievement to Teach Reading Comprehension at Seventh Grade SMP Tahfizhul Qur'an Pangeran Diponegoro Semarang

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ABSTRACT

This research aimed to explain the effect of the Mind Meister application on student achievement and engagement to teach reading comprehension at seventh grade at SMP Tahfidzul Qur'an Pangeran Diponegoro Semarang. The researcher used pre-experimental research. This research consisted one group pretest and posttest experimental design. The score of pretest and posttest will calculate in achievement students reading comprehension by using Mind Meister application, then the questionnaire conducted for the engagement students on the reading comprehension by using Mind Meister application. There are 85 students on this research of seventh grade. The Mind Meister application on the student's engagement was from the test of ANOVA showed that there is effect Mind Meister Application on the students' engagement. The sig. of the study is 0,002 it is < from 0,05. If the sig. < 0,05 it can be assumed that there is effect using Mind Meister Application on the student's engagement. The result of the effect Mind Meister application on the student's achievement was from the data showed the mean score of pre-tests of students was 75,52. Whereas, the mean score of the posttest 79,26. It increased 4,26 points. The difference between the mean pretest and posttest scores showed the significance of the students with the use of MindMeister application to teach reading comprehension.

Keywords: achievement, effect, engagement, Mind Meister Application, reading comprehension

INTRODUCTION

Language is used to communicate, to exchange ideas, to interconnect its users. Communication works when both the speaker understand each other. Language function is the purpose to achieve when you say or write something (Harmer, 2009). As a tool of an international communication, it should be learned by people who live in a country which uses English as a foreign language, including Indonesia. There are four language skills that must be taught at school, they are listening, speaking, reading and writing. Basically, one of the targets of teaching and learning English at school is to make the students able to communicate in English both in spoken and in written language, in which listening and reading are passive or receptive skills, while speaking and writing are active or productive skills (Harmer, 2001). However, it should be kept in mind that those skills cannot be learned separately. Students who are learning English should master those skills integratedly (Hamouda, 2013). Reading is an important skill that must be mastered by EFL learners. As they need to interact with written academic text, a good comprehension skill helps them gain a good

understanding of it. Grabe and Stoller (2002:9). It has been known that the students tend to face written texts every day. The written texts could be found in magazine, newspaper, books, articles on paper and the internet, and other kinds of written texts. Those written texts give so much information for learners. In school setting, texts are widely presented in textbooks. It means that reading is the students skill face mostly. Reading comprehension has been a part of classrooms as long as there have been schools, texts, students who desire (or are required) to read them, and teachers wanting to both promote and assess their understanding (Celce Murcia, 2001). As one of the important skills to learn, students are often difficulties upon learning reading (O'Malley, 1989). Indonesian students often find it difficult to comprehend English reading text, find the main ideas of paragraph, identify key supporting points, make inference, and understand vocabulary items in context. Therefore, reading comprehension should be essentially promoted here in order that students are able to assimilate the meaning of the text and understand the content. Reading begins with the decoding letters, letter groups, picture books, short stories and other texts. Therefore, it can be also said that students should not only be able to read the texts fluently, they also need to comprehend the content of the reading texts (Machado, 2010:329). Moreover, in some schools, the researcher found that there were learners with inadequate reading skills. One of the factors for success in the teaching and learning are the used of the teacher's tool. Nowadays, a technological tool is needed to support the teaching learning process. There are so many platforms that have been explored as the media to help achieve successful learning process. Mind Meister is one of the platforms that can be used to improve learners' English reading comprehension. The importance of these factors has been of interest in the field of language learning because of their high

effects on learning a foreign or a second language (Andres, 2002). Seeing this condition, English teachers should see the bright side to be aware of and take benefit by using the interactive tool to teach reading. One of the teachers' responsibilities is to choose. The MindMeister is the mind map digital application. MindMeister application can be one of the applications that can use in this teaching learning. The MindMeister application is one of the best collaborative mindmapping tools out there. It's a little less intuitive than other application. MindMeister can take some features like exporting the mind maps as a pdf or image, or attaching images. Furthermore, it expected that the application makes students more active in the learning process. They can engage the teaching and learning for reading comprehension on descriptive text. Moreover, the student's achievement will improve on their comprehension. Based observation and preliminary research in SMPTQ Pangeran Diponegoro. The students at SMPTQ Pangeran Diponegoro are very active. The teacher needs extra creative on the teaching and learning process. The implementation of curriculum Merdeka is also innovation to create an interactive learning. This means is the students can follow the digital era. Considering the problems that has been discussed above, it is sufficient to say that reading has an important role to help learners comprehend the text they have read. This research will be implemented in SMPTQ Pangeran Diponegoro Semarang. The researcher wants to explain the students' engagement and achievement in English, especially in reading comprehension text.

LITERATURE REVIEW

Reading Comprehension

Reading is a process when readers learn something from what they read and involve it in an academic context as a part of education (Grabe, 2009). In the classroom, some teachers often use texts or books as media to deliver material of a subject.

Furthermore, based on (Weaver, 2009) reading also engages human brain, emotions, and beliefs. Reading is a process which is very much determined by what the reader's brain emotions and beliefs bring to the reading: the knowledge/information (or misinformation, absence of information), strategies for processing text moods, fears and joys-all of it.

Mind Mesiter Application

Mind Meister is an online collaborative, knowledge-based mind mapping tool that students can use to understand and make connections between concepts, ideas, and information. The development of mind map is using the concept of the mind map. The mind map which was concluded by Astuti in her thesis (2012) is an important technique that improves the way we take notes, and supports and enhances our creative problem solving. The reader can simplify what they have read so that they can understand what is explained by the writer in the text. The diagram from a text shows detail information, main and minor information. Making the diagram or map makes reader can remember and learn clearly and easily.

Engagement

Students' engagement has been defining as "students' willingness, need, desire, and compulsion to participate in, and be successful in, the learning process" (Fredricks, 2011). Students' engagement has also been described as the level of interest demonstrated by students, how they interact with others in the course, and their motivation to learn about the topics.

Achievement

According to Brown (2004) define academic achievement as the level of development achieved by students through learning within a certain period of time under teachers' guidance and based on their previous experiences in such aspects as knowledge, skills, attitude, and values. The indicators of academic achievement reached by a student can be seen from their GPA (Grade Point Average). As stated by Brown

(2004), GPA is one of the best predictors of higher educational institution's success in academic activities since it indicates students' performance during their study in the university. GPA consists of final score accumulation for each course, and the final score is obtained from attendance, assignment, final examination, and mid-term examination scores. Thus, it can be concluded that GPA is actually the right indicators to reflect students' academic achievement in their classes.

METHODS

Research Design

Research design is guidance to do the research sequent. This study used a one group pre-test-post-test design. The design deal with the student's engagement and achievement on reading comprehension. Write here procedure/technique of your research study.

Participant

The researcher conducted the experimental study in SMPTQ Pangeran Diponegoro Semarang. The subjects were the seventh grade with consist of 85bstudents. There are three classes as one group seventh grade. The researcher used the group classes with nearly homogeneous levels of achievement by using purposive sampling.

Instruments

Three distinct types of instruments were used by the researchers to collect the data. They consist of a questionnaire, and observation checklist, and a reading comprehension test. reading comprehension among students is evaluated on the test including pre-test and post-test in the form of multiple-choice questions regarding descriptive text. In addition, the researchers adapted a questionnaire from Fredricks (2011) to gather more concerning the student's engagement. The third instrument was the observation checklist. This instrument was used to monitor and control the activity of the teacher and students during the treatment in the classroom. The observation deal with the student

engagement.

Data Analysis Techniques

The researchers analysed the tabulated data using SPSS to determine the results of a study. Means and standard deviations for the test score were calculated using descriptive statistics, and the degree of statistical significance was determined using inferential statistics (i.e., paired t-test, independent samples t-test, and one-way ANOVA). If the significant value (p-value) $\leq \alpha$ (5% or 0,05), alternative hypothesis (H_a) is accepted, and null hypothesis is rejected. It can be said that the student's engagement and achievement are effective to teach reading comprehension. Then, the researchers also interpreted it to be more easily understood by the reader.

RESULT AND DISCUSSION

The researcher presents the discussion of the research that explains the effect of MindMeister Application on the student's engagement and achievement to teach reading comprehension.

The data pretest and posttest data were revealed for the data analysis of student's achievement on reading comprehension. Then, the pretest was conducted for the students of the three experimental class. The researcher utilized the pre-test before the treatment of Mind Meister Application on the student's achievement to determine the validity and reliability of the test items that would be used in the post-test. The researcher gave the test which consist of 40 items related to the descriptive text in form of multiple choice. The validity and reliability results revealed that 10 test items were invalid, providing the students with 30 questions.

Based on the students' student's pre-test, the pre-test aimed to know whether students'

skill in reading comprehension were at the same level or not. Then, the score of the pre-test was calculated by using SPSS 22 program to know the normality and homogeneity. The data showed the significant values of pre-test and posttest in experimental taught using the Mind Meister Application 0,062 for pretest and 0,073 for posttest. It was higher than 0,05. It can be concluded that the data pretest and posttest in the three experimental classes were distributed normally.

From the homogeneity variances, the Levene statistics value of pre-test was 0,497. Because the significant value of pre-test was higher than 0,05, the pre-test of student's achievement was homogeneous. Meanwhile, the Levene statistics value of post-test was 0,719. The significant value of the post-test student's achievement was higher than 0,05, which indicated that the data was homogenous.

Furthermore, after getting the data pretest and posttest by giving treatment of Mind Meister application, the researcher gave the questionnaire to the students for finding the data analysis for student's engagement. Based on the findings, the significance value test of the questionnaire was 0,076. It means that the sig. value higher than 0,05. We can conclude that the data questionnaire was normal. The result showed that the significance value of questionnaire was 0,895. It means that the sig. value higher than 0,05. It concluded that the data questionnaire was homogen.

The effect of Mind Meister Application on the student's engagement in reading comprehension

The table below answered the research question of the effect MindMeister app to the student's achievement.

Table 1. one-way ANOVA of MindMeister application on the student's engagement

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.928	1	44.928	10.186	.002 ^b
	Residual	366.084	83	4.411		
	Total	411.012	84			
a. Dependent Variable: Engagement						
b. Predictors: (Constant), MindMeister						

From the test of ANOVA showed that there is effect Mind Meister Application on the students engagement. The sig. of the study is 0,002 it is < from 0,05. If the sig. < 0,05 there is an effect from the Mind Meister application to the student's engagement. From the data it can be assumed that there is effect using Mind Meister Application on the student's engagement.

The effect of MindMeister Application on the student's engagement in reading comprehension. The result showed that there is the effect of the Mind Meister Application to the student's engagement.

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Mind Meister Application on the student's engagement.

At can be stated from the research done by Nurhuda (2020) the study concluded that the implantation of platform is effective and can improve students' engagement in the classroom especially in reading comprehension activity. The students can learn together and help each other through learning cooperatively. They have the same purpose to be the best team. The students are direct learned well.

How is the effect of MindMeister Application on the students' achievement in reading comprehension

The table below answered the research question of the effect MindMeister app to the student's achievement.

Table 2. Paired sample statistics pre-test and posttest

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest achievement	75.52	85	9.265	1.005
	posttest achievement	79.26	85	9.115	.989

The table above showed the mean score of pre-tests of students was 75,52. Whereas, the mean score of the posttest 79,26. It increased 4,26 points. The difference

between the mean pretest and posttest scores showed the significance of the students with the use of MindMeister application to teach reading comprehension.

Table 3. Paired Samples Test

Paired Samples Test		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	pretest achievement - posttest achievement	-3.741	1.432	.155	-4.050	-3.432	-24.083	84	.000

The table showed the significance of the treatment by calculating the results of pretest and posttest for the student's achievement using Mind Meister application. The significance value based on the table was 0,000. The level of significance was 0,05. It can be said that the alternative hypothesis was accepted which proved that the use of Mind Meister application is effective on the student's achievement to teach reading comprehension.

Observations/Results of your study should be written in this section along with tables/charts/figures etc. write serial numbers and appropriate heading/title of tables and legend/caption of figures.

The effect of MindMeister Application on the student's achievement in reading comprehension. The result showed that there is the relation of the Mind Meister Application to the student's achievement.

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At can be stated from the research done by Dewi, et all (2021) the research showed the achievement in the reading comprehensive are improve, the research data analysis effect to the reading comprehension.

Finally, from the whole result, this present study has proven that Mind Meister application could improve the students' engagement and achievement in teaching reading comprehension to students.

CONCLUSION

The goal of the study was to provide answers to the two problem statements or research question on the effect of Mind Meister application on the student's engagement and achievement in reading comprehension. The research and data analysis that had been conducted led to the following conclusions.

First, the result of the effect Mind Meister application on the student's engagement was from the test of ANOVA showed that there is effect Mind Meister Application on the students engagement. The sig. of the study is 0,002 it is < from 0,05. If the sig. < 0,05 it can be assumed that there is effect using Mind Meister Application on the student's engagement.

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Declaration by Authors

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