

THE EFFECT OF ON SCREEN READING ON THE STUDENTS READING COMPREHENSION ABILITY AT SECOND GRADE OF MAN KOTA BATU

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Abstract

This article aims to investigate the effect of on screen reading on students reading comprehension ability at second grade of MAN Kota Batu. The research design of this study was quantitative study pre- experimental design. The participants of this study were 28 students. There was only one group of this study, which got two different test which are on screen and printed raeding test. The test was conducted three times. The questions of this study were taken from national examintaion focuss on hortatory exposition text; consisted of 10 items in each test. The result of the study was there was significant difference in score between the students reading on screen and in printed text. From the result of the study, it can be concluded that the use of on screen reading is better than reading in printed text as it helped the students to improve their reading motivation and reading mood, so it could improve their reading score.

Keywords : Reading comprehension, students, on screen reading

INTRODUCTION

It has been many years that skill of reading is taught in education world. It is because this receptive skill takes a crucial role in this global era. Reading is kind of process that is composed by the text, reader's background, and the situation the reading occurs (Hunt, 2004) the interaction between the writer and the reader is emerged during the process of reading. In other words, reading is like the process of communication between what the writer trying to say and the reader because the text being read has information that author wants the reader to understand. Anderson (1985) also defined that the step of creating meaning from written expression is called the process of reading. When the reader is reading the text, it shows that the reader is trying to find the information Reading is an activity which intends to absorb, understand and process what the text talk about (Murniasih, 2013). It is the process that consists of admission and comprehension skill.

From those definition stated above, reading lead the readers to understand the text. Therefore, reading comprehension ability is a vital ability in reading. According to Syaveny (2017) stated that reading comprehension is the process of combination between the information provided in the text and the prior knowledge of the reader. It can be concluded

that reading comprehension is not only reading the text, but also using prior knowledge toward the topic of the text that is owned by the readers. Reading comprehension is a skill which is important in educational world especially for students. Without drilling it, students may get struggle in many subjects' areas. Gilakjani and sabouri (2016, P: 180) directed that " reading comprehension is a complex process that involves components, process, and factors with the aim of finding better ways on improving it among learners". Presley (2000) also added that reading comprehension as the skill to find the meaning from the text read. In other words, this is the process of knowing the real meaning of the information being searched in the text. Based on Takaloo and Ahmadi (2017) reading comprehension means that perceiving vocabularies utilized in written text and creating relationship between them to gain a good understanding. To summarize those definitions stated above, reading comprehension can be defined as the act of combining information in the text with reader's prior knowledge in order to construct the meaning.

By reading, people can easily earn information about something that they never know before. This skill also has high contribution in enriching people's knowledge. In gaining a good score or perception about something, people are demanded to have more knowledge about what they are facing. By having a lot of knowledge, students may have view toward something which is being learned. This skill also contributes in gaining students critical thinking. According to Kucukoglu (2012) when the students intend to know deeper about something that they are learning about, they need to read critically and analytically. Critical thinking helps students to be able to analyze and evaluate the content being discussed in a text.

Noticing those advantages, problems also emerge toward students managing the skill of reading. The first problem is lack of vocabulary becomes the most common problem happens to the students. Lack of vocabularies makes the students sometimes are lazy to read and cannot understand the content of the text. The teachers also do not support the students to learn vocabulary well. They take it for granted and regard that students can learn it by themselves. Whereas, providing an effective way about vocabulary instruction in teaching process is important for all teachers (Ryder & Graves 2003).

The second problem is lack of motivation to read. Sometimes, teachers need to find way to improve student's motivation in teaching reading such as giving reward, motivation words, and good scores for those who are able to do the task.

The third problem comes from limited media used to read. The teachers sometimes cannot provide an interesting media in teaching reading by providing conventional way in teaching everyday such as printed material which looks tedious for students.

The problems that emerge at MAN Kota Batu is also similar. As the result of observation and interview with English teacher in MAN kotaBatu, the students have no spirit to study when the teacher teaches students using printed material which is boring for them. It becomes worse when their common problem in reading is having difficulty in vocabularies that makes them hard to understand the text. It reflects to their score in reading which is so apprehensive. Yet, it is contrary to their habits in using Smartphone. They look enthusiastic with lesson using digital media which is so close with their world.

Talking about smartphone, this kind of device is used in this study as the facilitation to implement on screen reading. With the computer and gadget are being more integrated in daily life, students will prefer to read the information through online way. Not only entertainment thing, but also in case of studying reading itself. Some experts defined reading on screen in many definitions. As cited by Nordquist (2017), reading online means an activity in order to extract meaning from a text which is written in digital form. It is the same as the process of reading in printed as the process of understanding the meaning of the text, but the text is on screen. As stated by Wikipedia, on screen reading means that the action of reading particular text the screen of electronic things such as computer, smartphone, e-Book reader etc. It is well-known that screen is a part of people's life in this digital era. People like to find information needed by them through online way by using those digital things. In other words, that is the reason why online reading or on screen reading has become a new habit of people in orders to get information in this millennial era. Syaputri and Trilestari (2013) also added that reading digital is defined as reading material that is provided in digital form of the text. These digital technologies provide knowledge which is easy to be accessed in internet. As has been known that people nowadays spend a lot of time reading from a screen where the reading materials are fully provided.

Some benefits provided by on screen reading are easy to get any information anytime. As has been discussed that people now spend more time with their digital devices. In short, people prefer to read information through digital devices, and it is easy to access.

Hyperlink supporting for further information is the next benefit of on screen reading. People sometimes need more reference or explanation toward the text being read. However,

printed reading doesn't provide hyperlink system. By reading online, the reader can get more information related to the topic that readers need since hyperlink support the readers to find out external references (Juan and Madrid, 2009).

Since it is known as the practice in teaching reading, some research about on screen reading are revealed. As has been done by Juan and Madrid (2009), the subjects of this research were 154 students first- and second-year Spanish speaking undergraduate students registered in Tourism academy. This study came up with the improvement of World Wide Web and internet, and the term of hyper reading becomes an issue in the educational world. The study showed the frequency data for the fixed choice questions. It shows that 68% of students were not familiarized with the on screen reading with hyperlinks. However, despite this fact, it shows that those 68% of students had feeling that hyperlink had helped them to understand the text better, and 64 % of them like to read the passage on screen better than in printed.

The second study was conducted by Ertem (2010), the study analyzed the difference of readers' comprehension of storybooks to the medium presentation. 77 students of fourth-grade were engaged in this study, and the result was measured by using analysis of variance (ANOVA) with 0.05 as the significance level. The result stated that there is significant difference between both groups. The students reading in computer had better comprehension both in terms of students' ability to retrieve information and to make inferences from the story read by them.

The third study was conducted by Aydemir, Ozturk, and Horzum (2013). The purpose of the study was to know the effect of reading from screen on reading comprehension levels of the 5th grade students in informative and narrative text. The participants were consisted 60 students who studied in a public school. In the finding for narrative text, it is found that there is no significant difference between both groups.

Another study was conducted by bickel (2017) . The study showed that there is no significant evidence to show that the students' reading achievement will increase when interactive E- books is implemented in their learning activity.

Those previous study become the reference for the researcher in comparing between those previous studies with the researcher study conducted in this time. Some differences

emerge between this study and the previous studies stated above such as the method, the kind of text used by the researcher, and the grade of the students. However, the similarity found in the objective of the research in which the researcher intended to know how printed text and screen text affect students' reading comprehension ability

This study is conducted in order to investigate the effect of on screen reading toward students reading comprehension ability. The research question is formulated as follows :
Is there any significance difference in score achievement between students who read through on screen and printed text?

RESEARCH METHOD

The research design of this study was Pre- experimental research in which the researcher had no control group during the research or used the same group as the experimental group (Latief, 2017). The author selected one class to conduct the research. The treatment was given to the class both printed reading test and on screen reading test, and the researcher assessed the results of both tests.

This experimental study was conducted in MAN Kota Batu. The researcher decided to use second grade students especially XI IPA 3 as the main subjects in this study. The instruments of this study were hortatory exposition test which were adapted from national examination and corrected a week by the lecturers and 3 English teachers in the school in order to check the validity of the instrument. In order to get good instrument, the researchers decided to measure the readability of the test using Flesh Reading Ease (FRE) which is created by Rudolf Flesh (1948) and considered as the appropriate formula in testing reading difficulty.

Furthermore, the researcher used hortatory exposition test which consisted of 10 multiple choice questions in each test with 15 hortatory exposition texts. The researcher input the file of the test to FRE readability test, and it finds out that all texts in the test were standard texts for the students in second grade with the score 65. The formula and calculation are written below:

$$\text{Score} = 206.835 - (1.015 \times \text{ASL}) - (84.6 \times \text{ASW})$$

ASL = Average sentences

ASW = Total syllables

According to flesh reading ease formula, the lower the readability the more difficult the text is. The score between 60-70 is regarded as the acceptable text to use to test. The following table is the calculation of flesh reading ease formula:

Reading Ease Score	Style Description	Estimated Percent of U. S Adults (1949)
0 to 30:	Very Difficult	4.5
30 to 50:	Difficult	33
50 to 60:	Fairly Difficult	54
60 to 70:	Standard	83
70 to 80:	Fairly Easy	88
80 to 90:	Easy	91
90 to 100:	Very Easy	93

Source: The Art of Readable Writing, Flesch (1949)

The researcher used goggle form as the media for the students when doing onscreen reading test by sharing the link of the test to the students. By clicking the link that is created by the researcher, the students are already in the test.

The research was conducted in 3 times printed and on screen test in three different weeks to make sure that the data are valid. So, for week one the students completed test 1 which consists of printed and on screen reading test, test 2 printed and on screen test, and test 3 printed and on screen reading tests. The printed and on screen test were conducted in different day for each week to avoid students exhaustion in doing the test. The test was conducted in outside of school time to make sure that the subject is also not too tired and ready to do the test. The researcher used 28 students in one class. The time given in each test was 60 minutes.

Before giving the test to each group, the researcher checked the condition of the class was convenient to do research. The researcher also checked out the condition of the students whether they are ready or not to join the test in order to get a good result of the research. After making sure everything is fine, the researcher distributed the papers in the printed reading test, and shared the link in on screen reading test.

The data were collected by comparing the students' score based on the different treatment. The results determined the significant differences that emerged in the test. The calculation of the data was analysed using IBM SPSS to test the normality of the data and find the result of the research.

RESULTS AND DISCUSSIONS

The research results intend to focus on the analysis of the data using the student's score joining the printed and on screen reading test and test the research hypothesis. As has been explained before that the researcher used one class to take the data. The number of subject in that class were 28 students that had been facilitated to doprinted reading test and on screen reading test. The researcher decided to use IBM SPSS software 20 version.

1. Normality Test

In order to find that the data was normally distributed or not, the researcher did normality test. Shapiro- wilk IBM SPSS statistic20 version was used to test the normality. The results of the test can be seen below :

First Test

	Statistic	Df	Sig.
Printed Test	.844	28	.001
On screen Test	.742	28	.000

Second Test

	Statistic	Df	Sig.
Printed Test	.533	28	.000
On screen Test	.877	28	.006

Third Test

	Statistic	Df	Sig.
Printed Test	.534	28	.000
On screen Test	.817	28	.000

Three tables above show the result of normality test from each test. The significance value in table are 0,001 for printed test and 0,001for on screen reading test. Tables 2 above show significance value in 0.000 for printed reading test and 0,006 for on screen reading test. Table 3 show significance value in 0.000 for printed reading test and 0,000 for on screen reading test. As is known, the significance value must be higher than 0,05 ($> 0,005$) to be categorized that the data is normally distributed. From the the table above, it can be seen that all significance values show less than 0,05 ($< 0,05$), so it can be summarized that the data are not normally distributed. to continue this study, the researcher should implement non parametrical analysis in calculating the data.

2. Wilcoxon Test

Since the data were not normally distributed, the researcher used non parametrical wilcoxon test analysis to continue the study. The results of the research are as follows :

First Test

Descriptive statistic

	N	Mean	Std. Deviation
Printed test	28	67.86	7.382
On screen test	28	78.57	10.079

This table shows that the mean score that is had by On screen test is higher than the printed test. The mean score of printed test is 67.86 while on screen test is 78.57.

Test statistic

	On screen test- printed test
Z	-3.299
Assymp.sig. (2 tailed)	.001

To find out whether the mean score in first test is significant, this table will explain the answer. The z shows -3.299 and the significance value is .001 which means that it is less than 0.05. It can be concluded that the difference in the mean score in the first test is significant different.

Second Test

Descriptive statistic

	N	Mean	Std. Deviation
Printed test	28	62.50	14.305
On screen test	28	83.21	14.156

The mean score in this table are 62.50 and 83.21. The mean score of on screen test is still higher than printed test. the standard deviation is 14.305 for printed test and 14.156 for on screen test.

Test Statistic

	On screen test- printed test
Z	-4.333
Assymp.sig. (2 tailed)	.000

It can be seen from the table above that the z is -4.333, and the significance value is .000 which means that it is significance different for the mean score between printed test and on screen test in second test.

Third Test

Descriptive Statistic

	N	Mean	Std. Deviation
Printed test	28	60.00	3.849
On screen test	28	81.07	18.123

The mean score in this table shows that the score of on screen reading test is still higher than printed reading test. The mean score is 60.00 for printed reading test and 81.07.

Test Statistic

	On screen test- printed test
Z	-3.766
Assymp.sig. (2 tailed)	.000

in third test, the Z is -3.766, and the significance value is .000 which means that in third test the different is still significance.

DISCUSSIONS

The discussions toward the results that have been stated by the researcher lead to believe that the students who read using on screen media have better score than those who read from printed form. The evidence shows from the three times test, the on screen reading test consistently have higher mean than printed reading test. The mean scores are 67.86 and 78.57 in first test, 62.50 and 83.21 for second test, and 60.00 and 81.07 for the third test. It means that the students who read through on screen reading have better achievement than the students who read in printed text. The significant values on test 1,2 and 3 show that the difference is significant. The significance values are 0.001 for the first test, 0.000 for the second test, and 0.000 for the third test which mean less than 0.05. So, the results are

significant difference for the finding of the study. This result also answers the research problem of this study.

A study by Juan and Ruiz (2009) supports the results of this research. With 154 participants who are undergraduate students, it shows that 68 % students were not familiarized with reading on screen. However, 68% of them stated that on screen reading really help them to understand the text better than printed text, and 64% of them preferred to read the text on screen than in printed. From this study, it can be seen that the subject of this study were millennial generation in which they are so close enough with the technology to read something such as smartphone and computer. It helps them to understand the text well.

A study conducted by Ertem (2010) also supports the results of this research. With 77 students of fourth grade involved in the research, the results showed that the students who read in computer had better comprehension both in terms of students' ability to retrieve information and to make inferences the story read by them. The things of this previous study that makes it the same as this research is also the subjects of this study. The students of fourth- grade who are known as the millennial generation is the subject of this previous study, and they also consider that modern media such as smartphone and computer are the things that help them to fix their mood in learning. The researcher also used the millennial generation; students of senior high school in which known closer with the modern media. Therefore, it is clearly claims that ,modern media in learning helps nowadays students to get better achievement in their learning process.

From those explanation stated above, it can be concluded that the factor of millennial generation absolutely influences the result of this study. The students are so comfortable to read with the things that is close enough with them such as smartphone and computers, because it helps them to to get information and study easily everywhere.

CONCLUSIONS AND SUGGESTIONS

The focus of this study was the effect of on screen reading toward student's reading comprehension. the research design of this study was quantitative pre- experimental design. The study was conducted at MAN Kota Batu at second grade students. 28 students of class XI IPA 3 were selected as the participants of this study. The instrument of the research were in form of multiple choice questions about hortatory exposition text adopted from national examination.

In the end, the test was conducted three times, and the data were analyzed using SPSS Wilcoxon test 20. The data showed that the test of reading using on screen reading have higher mean score than the test using printed reading. The difference in significance value is also significant. To sum up, the use of on screen is more effective to improve students reading comprehension ability than printed text in XI IPA 3 showed by the scores gained by the students who did on screen reading test are higher than the students who did the test with printed text. The implication of this study is found that the students of XI IPA 3 which become the subjects of this research can start applying on screen reading as a new habit in reading activity in then class.

After finishing the study, the researcher relizes that there are many gaps and limitation that emerge in the study. The gaps and the limitation that reveal in this study can be explored deeper by the future researchers in order to make a better study than before. Conducting study dealing with improving things that is much better than the previous studies. Therefore, some suggestions are provided in this study for the future researcher who intend to make a study with the same focus as this study.

Hortatory exposition is the only material used in the on screen and printed reading test to check the students comprehension. Adding more material could better way in the next study it. The material could be the previous material that students have studied before, so the result could be more valid.

The reliablity of the test is not good since the researcher had no time to find more questions to be tested to the subjects of the study. Reliability should be acceptable for future researchers who want to conduct similar study by constructing at least 30 questions in form of multiple choice.

The number of subject engaged in this study were 28 students in the second grade of senior high school. It seems not enough to represent the more general community. The next researcher could find more subjects in order to make a better study and get more valid result. Selecting the students comprehension level before joining the test could be an alternative for future researcher.

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