

THE EFFECT OF APPLYING SOCRATIVE ON STUDENTS' READING ABILITY

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ABSTRACT

This study aimed to determine the impact of the application of socratic to the reading ability of students in industrial 4.0 era, where anything was done using the internet and computers. The method used in this study was the pre-experimental type One Group Pretest-Posttest. This method used a class that was used as the object of research. This research was conducted at SMK 1 Baureno located on Jl. Raya Kepohbaru Department No. 258, Baureno, Plumbungan, Bojonegoro. The object of this research was the 10th grade computer and network engineering students at SMK 1 Baureno. The number of students was 34 consisting of 17 male students and 17 female students. This research was conducted on February 5 through March 11, academic year 2019/2020. There were three activities carried out, namely pretest, treatment and posttest. The hypothesis accepted in this study was the alternative hypothesis (H_a). Because the results of this study indicated that the t-test of 34 students was 17,07 with a significant level of t-table 0,05. This mean that there were differences in the ability of students before and after treatment was given. And from the results of questionnaires that had been done that 10th grade students of computer and network technique at SMK 1 Baureno preferred to read online (using socratic) rather than reading offline.

Keywords: Reading ability, socratic

INTRODUCTION

Reading is a simple thing but it is often difficult for many people to do. Reading is an easy activity to do but often it has become a habit. Many people interpret that reading is a boring activity and just a waste of time. Especially in this day and era, namely in industrial 4.0 era where everything has been replaced by internet technology, computers or robots. Everything can be added into visuals that are more attractive to people who make people less interested in reading.

Nowadays, reading interest for teenagers, especially students, is decreasing, for example, when they read English reading. They will only immediately see the end of the reading without reading how the process happens when getting that conclusion. Because they think that reading is boring especially in English where they do not know how to read the vocabulary and they do not understand the meaning of the reading which makes them lazy to read English reading.

In this 4.0 industry era, many students are not interested in reading books but they are more interested in reading through their smart phones.

Therefore, the writer wants to follow the times by applying socrative to the learning level at SMKN 1 Baureno. Socrative is a student response system that allows teachers to make quizzes or interactive games and involve students directly or in real time. With the existence of socrative can facilitate the performance of not only students but also teachers. The teacher can monitor facilitate the performance of not only students but also teachers. The teacher can monitor all student activities when exams use this socrative. Although there are students who are unable to attend the exam. These students can take the exam wherever they are with supervision from the remote teacher. Because the teacher as a controller in this socrative.

Socrative is very effective and efficient to be applied in Bojonegoro, especially in urban areas. Even in schools, villages can use social media even though their school does not have a computer. Because socrative can be used not only through computers but also cellphones. Therefore the writer is very supportive if this socrative can be applied throughout the Baureno vocational School.

Based on the background of the study above the problems are “is there any effect of socrative for tenth grade computer and network technique students’ reading ability at SMKN 1 Baureno” and “do tenth grade computer and network technique students at SMKN 1 Baureno prefer reading or online examination (using socrative) than reading or offline examination (using paper)”.

The objectives of the study in this research is to get whether the socrative is effective for tenth grade computer and network technique students’ reading

ability at SMKN 1 Baureno and to find out the choice of the tenth grade computer and network technique students between using socrative or paper at SMKN 1 Baureno.

According to Soedarso (2010: 4) reading is a complex activity by directing a large number of separate actions. Reading as an activity which includes the introduction of written symbols or sound symbols. Language acts as a stimulus to remember the meanings that were built on past experiences and arrange these new meanings by manipulating the concepts of the reader.

Reading can also be considered as a process to understand what is implied in what is written, that is understanding the meaning contained in the written words. The meaning of reading does not lie on the written page but on the reader's mind. Thus the meaning will change, because each reader has a different experience that is used as a foll to interpret these words (Harjasujana in Sumendar, 2008: 32-35).

Reading activities include 3 basic skills, namely recording, decoding, and meaning. Recording refers to words and sentence, then associate them with the sounds in accordance with the writing system used. The decoding process refers to the process of translating a series of graphics into words. While meaning is a process of understanding meaning that takes place from the level of understanding, interpretative, creative, and evaluative understanding. The recording and decoding process takes place in early grade students, while the meaning is more emphasized in high classes (Farida Rahim, 2008: 2).

Socrative one of the e-learning applications that can be used in learning based on ICT (Information Communication Technology). Socrative is a student response system that allows the teacher to make quizzes or interactive games and involve students directly or inreal time (Guraru, 2013).

Furthermore, Chotijah (2016) states that e-learning media socrative is a product in processing material.

In socrative there are five menus, namely:

Launch

The launch feature there will be several choice such as quiz, space race, ticket excit and quick question in the form of multiple choices, true or false and short answer.

Quizzes

This menu serves to create quizzes or questions.

Rooms

This menu serves to create a room that is in the sense of making a group for students. In this menu they can see how many students join the teacher account.

Reports

This menu serves to display the history or all activities that they do in the socrative.

Results

This menu has a function to give the final results of students' scores after working on the tests given by the teacher. They can get students report by clicking finish, there will be three choices, namely get reports, view chart, and to launch. The report can be sent via email or downloaded directly.

The researcher has similar topic with this research. It is conducted by Hartini Ervi Astutik "*The Effectiveness of English Morning Conversation in Teaching Vocabulary Matery*", the result of her research is that the English Morning Conversation effects for the students' vocabulary.

Based on the explanation above, the research is the interested in the effect of applying socrative for the tenth grade students of SMKN 1 Baureno. Furthermore, this research is conducted with the purpose to know the effect of after and before applying socrative for the students.

RESEARCH METHOD

The method used in this study is the design method of One Group Pretest-Posttest design method which is a form of pre-experimental design. One Group Pretest-Posttest design used a pre-test before being treated, and then a post-test after being treated. Using this design, researcher can compare conditions before being treated and after being treated.

The sample of this research is Computer and Network Technique tenth grade students as the experimental class. The sampling technique uses quota sampling technique. Sugiyono (2016: 85) states quota sampling is a technique for determining samples from populations that have certain characteristics to the desired amount (quota).

This research is an experimental research. Experimental research is research that is used to look for differences in certain treatments for others under

controlled conditions. The controlled condition referred to is the existence of the results of the study being converted into numbers, for the analysis used using statistical analysis (Sugiyono, 2016: 72).

The experimental research method can be interpreted as a research method used to look for the effect of certain treatments on others under controlled conditions (Sugiyono, 2016: 72).

This research is pre-experimental designs because this design is not a real experiment because there are still external variables that influence the formation of the dependent variable. So the results of experiments which are dependent variables are not solely influenced by independent variables. This can occur, because there are no control variables, and the sample is not chosen randomly.

Sugiyono (2016: 73) states there are four kinds of experimental design. Those are pre-experimental design, true-experimental design, factorial design, and quasi experimental design. In this research

the researcher uses pre-experimental, which is called one group pretest-posttest. The pre-test is intended to see the reading ability of the students before treatment while the post-test is administrated to know the influence of the treatment. With the formula used is as follow:

$$t_o = \frac{M_D}{SEMD}$$

The instruments used in this reserach are test and questionnaire. The test are pre-test and post-test. Each contains 25 questions. Pre-test is given at the beginning of the meeting and post-test is given after being treated. The second instrument is questionnaire. Questionnaire is for supprotng data. The writer makes precentage of each question in this questionnaire. The questionnaire used is the Guttman scale type. Measurement sclae with this type, will get a firm answer, which is “Yes or No”, “True or False”. Research using the Guttman scale is done if the writer wants to get a firm answer to a problem being asked. Guttman scale can

be made in the form of multiple choice. In addition, it can also be made in the form of a checklist. The answer can be made the highest score one and lowest zero.

FINDINGS AND DISCUSSION

Based on the teaching and learning process, the researcher collected the data throughout the study. Data presentation showed about the results of the pre-test and post-test. The test results show the influence of teaching reading (present continuous) using socrative at SMKN 1 Baureno.

The Result of Pre-test

Pre-test was a test that was applied before being given treatment. The pre-test was attended by 34 students. The researcher gave 25 questions and the writer did not give any action to the students. So the results of the pre-test are students' original ability before getting the material or the treatment from the researcher. The results of pre-test was four students got the highest score. The score

was more than 75. The result of total pre-test score was 2004 of 34 students. The mean of pre-test was 58,94.

Table 1. Students Pre-Test Score

Name	Pre-Test
Student 1	56
Student 2	44
Student 3	44
Student 4	44
Student 5	44
Student 6	48
Student 7	72
Student 8	44
Student 9	72
Student 10	64
Student 11	60
Student 12	80
Student 13	72
Student 14	56
Student 15	60
Student 16	40
Student 17	40
Student 18	72
Student 19	60
Student 20	40
Student 21	60
Student 22	80
Student 23	60
Student 24	72
Student 25	64
Student 26	64
Student 27	76
Student 28	64
Student 29	68
Student 30	28
Student 31	76
Student 32	56
Student 33	64
Student 34	60
N = 34	2004

The Result of Post-test

Post-test was a test that was given after being given treatment to the students and applied socratic. Post-test was attended 34 students. The writer gave a post-test consisted 25 questions. The post-test material and question was same as the

pre-test. The total results of the post-test score were 3240 out of 34 students. The mean of post-test was 95.

Table 2. Students Post-Test Score

Name	Post-Test
Student 1	100
Student 2	60
Student 3	100
Student 4	88
Student 5	92
Student 6	92
Student 7	96
Student 8	88
Student 9	92
Student 10	100
Student 11	100
Student 12	100
Student 13	100
Student 14	88
Student 15	100
Student 16	100
Student 17	100
Student 18	100
Student 19	100
Student 20	92
Student 21	88
Student 22	100
Student 23	100
Student 24	100
Student 25	92
Student 26	100
Student 27	96
Student 28	92
Student 29	96
Student 30	88
Student 31	100
Student 32	100
Student 33	100
Student 34	100
N = 34	3240

Data Analysis

Find the mean of *Difference*, by the formula:

$$\begin{aligned}
 M_D &= \frac{\sum D}{N} \\
 &= \frac{-1236}{34} \\
 &= 36,35
 \end{aligned}$$

Looking for standard deviations from Difference (SD_D), by the formula:

$$\begin{aligned}
 SD_D &= \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2} \\
 &= \sqrt{\frac{50032}{34} - \left(\frac{-1236}{34}\right)^2} \\
 &= \sqrt{1471,53 - (-36,35)^2} \\
 &= \sqrt{1471,53 - 1321,32} \\
 &= \sqrt{150,21} \\
 &= 12,256
 \end{aligned}$$

Looking for the standard error of the mean of difference, which is SE_{MD} using the formula:

$$\begin{aligned}
 SE_{MD} &= \frac{SD_D}{\sqrt{N-1}} \\
 &= \frac{12,256}{\sqrt{34-1}} \\
 &= \frac{12,256}{\sqrt{33}} \\
 &= \frac{12,256}{5,745} \\
 &= 2,13
 \end{aligned}$$

Looking for t_o , by the formula:

$$\begin{aligned}
 t_o &= \frac{M_D}{SE_{MD}} \\
 &= \frac{36,35}{2,13} \\
 &= 17,07
 \end{aligned}$$

After all the result of t-test, the writer calculated Degree of Freedom (df)

by the number of each object (N) less one numeral. The writer was consulted at the table critical value and t-value at the level significances 0,05 the respondents of this research were 34 students, it means that degree of freedom (df) was determined by N-1, were N represented the sum of respondents. And the “df” was $34 - 1 = 33$, the t-value at critical table of 0,05 was 2,03 at the level significance 0,05 for df = 33. Therefore, the influence of using socrative on reading ability of the students computer and network technique at SMKN 1 Baureno in the academic year 2019/2020 was effective. It means that there was significance different of the students’ reading ability. So that, the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected.

Table 3. The Hypothesis Testing of Test

Degree of Freedom (df)	t -value	t -table	Note
		,05	
N - 1	1		t-
34 - 1	7,07	,03	value was higher than t-table, so alternative hypothesis
33			

(H_a) was
accepted

The Result of Questionnaire

Questionnaire consists of 5 numbers of items, it is answered by 34 students. After collecting the result of questionnaire that is diagramed using pie diagram. It is analyzed by diagraming the students' answer by using Guttman scale.

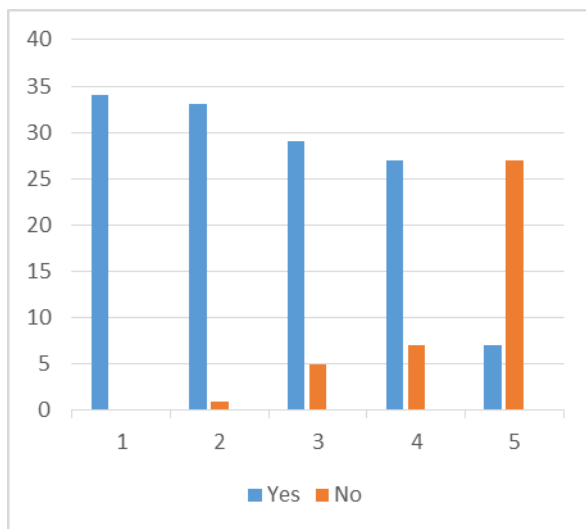


Figure 1. Graphic of Questionnaire

Based on all the questionnaire, the writer can conclude that socratic is very effective to be applied at SMKN 1 Baureno exactly to the computer and network technique students. Most all students think that socratic is effective e-

learning to be used learning reading especially present continuous.

CONCLUSION

Based on the research data after doing pre-test, treatment and post-test. The t-test result from 34 student respondents is 17,07. Significant point t-table used in this study is 0,05. So, the t-test value is higher than degree of freedom and t-table. It means that there is significance different of students' ability. So that, the alternative hypothesis (H_a) is accepted and the null hypothesis (H₀) is rejected. So, socratic is effective to improve tenth grade computer and network technique students' reading ability in SMKN 1 Baureno.

Based on the result of questionnaire, the researcher can conclude that all the students, consisting of 17 males and 17 females at SMKN 1 Baureno, choose reading using socratic than reading using offline. They think that socratic is fun for learning reading. Learning using socratic also can make

easier and more creative to understand and make present continuous sentence. And the last is the students do not have any difficulty in learning reading using socratic.

To sum up, socratic can help teacher and students to make easier on learning reading. It can be their media on learning reading.

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