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The Effect of Storyjumper on Students' Vocabulary Comprehension

Putu Cleo Chintya Rossa Devi
[1]*English Education, Ganesha University of Education, Singaraja, Indonesia*
E-mail: chintyacleo@gmail.com

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***Corresponding Author:**
chintyacleo@gmail.com

ABSTRACT

This study is a quasi-experimental research which aimed to investigate whether there is significant effect of using story jumper on 2nd grade students' vocabulary comprehension in SDN 1 Semarapura Kangin. The population if this study involved 30 students from each class that was A class that was being the control class and B class that was be the experimental class. The result shows that there is significant difference of the post-test achievement between experimental group and control group proved with T =3.05, Df = 90, and sig. 0.04 (p<0.05). That means there is significant effect of effect of using story jumper on 2nd grade students' vocabulary comprehension.

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1. INTRODUCTION

English has become a universal language that is used in the world of technology, education, politics, trade, etc. It is because English is the language that is used by most of the countries in the world. English is a global language, so for people who want to go one step ahead of the other, it is necessary to learn and master English. The main purpose of learning English is to achieve fluency in communicating with English. Fluent is meant to be able to speak the language with good pronunciation and reach of vocabulary. The more people know about words in English, the better they communicate in English.

There is a widespread belief that it will be better to learn a foreign language in the early age. International empirical research shows that a person who starts learn English early generally has a higher level of fluency than those who begin at a later age (Amelia, 2016). It is because in learning language, children experience several stages of development start from producing sound, several syllables, and sentences until they are able to communicate well. Early childhood represents a crucial period for the development of skills and abilities which is important for later academic success (Hume et al., 2015).

Nowadays, most of young students have been taught English in their school and they are called as young English learners. They are primary school-age children who receive English subjects at school. Fransischa and Syafei (2016) stated that there are several characteristics of young learner. Young learner age 5-7 years (level one) are imaginative and active learners, egocentric, difficult to differentiate between concrete and abstract things, and easy to get bored because they have short concentration span. They like stories just they like to play. In the age of 8-10 years old, they are already have awareness to learn foreign language. They like to learn by doing. For example they like to play and sing by moving their body members to give meaning of their speech (Permana, 2020).

Based on those characteristics, teaching English for young learners should be done in natural way. Children usually want to explore and discover everything they learn because they are naturally curious learner. They learn more seriously if their explorations bring pleasure or success (Mahayanti, 2017). Therefore, young learners need to learn something in the natural and fun way which is appropriate with their characteristics.

However, most of young English learner in Indonesia are still not be able to use English well because they are less motivated to learn English. The strategy in teaching English tends to be monotonous and not attractive are the reason that influence students' motivation in learning. In general case, children are told to memorize some kinds of vocabulary in the list. This tends to make children easily forget the material that has been taught because children will understand when they see, hear, touch, and interact rather that from explanation. The other cause is the lack of appropriate and attractive tools or media of teaching make children feel bored and lazy to learn (Wulandari et al., 2020). They need to be taught through the fun way to get their motivation in learning. Considering about the importance of learning English for children and the problems that they faced, then the effort to increase their motivation is very important thing to do.

One appropriate teaching media to improve children's enthusiasm in learning English vocabulary is 'Digital Storytelling'. Storytelling is no longer a strange word to be heard. It is such a tradition that most of people do. Then the traditional storytelling is combined with technology becomes digital storytelling. The narratives are combined with audio, video, music, digital images, and various technological tools to create a high-tech scrapbook (Kocaman-Karoglu, 2015). These technological tools provide a foundation for offering digital storytelling experiences in a classroom (Lisenbee & Ford, 2018). Digital storytelling is one of the applications of ICT in education. It brings many benefits for teachers and students (Preradovic et al., 2016). For teachers, it helps teachers to vary their teaching style in order to avoid students' boredom. Therefore students are expected to be more enthusiastic in learning.

One site of digital storytelling that can be used is Story Jumper. Story jumper is a digital storybook that can be used to design the E-book to be read anytime online by the children, so that they can learn independently (Choo & Zainuddin, 2018). This can be called as students-centered approach. By conducting students-centered learning, the students are expected to participate actively in building their own knowledge, attitudes, and manners so they will be able to get their own deep learning and deep understanding which can make them become more qualified latter on (Hadiyanto et al., 2021). It makes story jumper can be a choice to teach English for young learners. Moreover, there are several viewpoints in the literature about story jumper as the learning media in the educational field.

There are several studies that used story jumper as the tool of learning activity to investigate certain skill. A research by Mousazadeh et al., (2018) was done during three months which was about using storyjumper as a digital storytelling tool to examine the EFL learners' perception and the process of writing development. The researchers conducted the research by using quantitative and qualitative data analysis methods to explore the effect of story jumper on students' writing ability and students' perception. Narrative Writing Analytic Evaluation Rubric was used to evaluate studesnts' writtings. For the students' perception and the type of mediation they were most responsive to, the researchers analyzed students' journal by using content thematic analysis. Then the result of this study shows that story jumper gave positive effect on students' experience in writing. A significant difference between EFL learners' writing development before and after receiving the treatment was showed through both the quantitative and qualitative data analyses.

Another research that used story jumper as the tool for teaching writing was conducted by Choo and Li, (2017). The researchers explored the use of story jumper in the digital writing to enhance students' learning in writing essays as well as motivate them to write and share their ideas with others. The participants were four Malays, two Chinese and two Indians. They were the seventh semester student teachers of the four years programme for Bachelor in Teaching that was conducted by one of the Institutes of Teacher Education in Malaysia. The research was done through case study research method. The researchers qualitatively analyzed the participants' work, reflective journal writings and interview. The the results showed that the student teachers could improve their learning by producing essays with better quality. The possibility of grammatical errors was less than writing essays in conventional way. The student teachers were also more motivated to produce essay in digital for as they could insert their own selected images and designed their own digital essays in different layouts. The reseachers argued that story jumper is really recomended as the tool of digital writing activity. It can encouraged a collaborative learning environment and people's motivation in writing.

Beside writing skill, story jumper can also be a tool of teaching to increase children's reading comprehension. Using the E-book to improve children's comprehension in reading is a good strategy because the elements in E-book can trigger children's interests in order to help them comprehend the text better and they are no longer feeling bored in the class (Choo & Zainuddin, 2018). In this case, they used story jumper as the an E-book for increasing children's reading comprehension. An action research was done by the researchers to improve reading comprehension among Year 4 children in one of the primary schools in Malaysia. This study results positive improvements in terms of children's level of understanding and responses in reading. It was also found fron the reflective journal that the children had participated actively in the learning process and their level of motivation was increased.

Moreover, the study conducted by Ertem (2013) presented a comprehensive review of researches and practices on digital children's literature and technology-based literacy instruction in classroom. Here story jumper was used as the tool for technology-based literacy instruction in classroom. The findings of study

indicated that technology can enable students to do such things as develop word recognition, fluency, reading comprehension and motivation. Teachers have positive attitude and they are enthusiastic to use technology in the classroom. In the digital age, teachers need to consider use digital children's literature in their own classrooms. This transformation in literacy holds great promise for normal readers as well as struggling readers.

Akayoğlu and Cirit (2017) did a quantitative study with descriptive content analysis on 56 pre-service teachers of English enrolled in Computer Assisted Language Learning (CALL) course at the Department of Foreign Language Education at a state-run university in Turkey. The researchers investigated in which part of their lesson plans the pre-service teachers preferred to use technology and whether the tools they prefer are purposive enough to meet the objectives specified in their lesson plans. At the end of the study, it was found that pre-service teachers of English preferred to use CALL tools 165 times in their lesson plans. They preffered to use CALL tools in the whilst activity and the most commonly preffered CALL tools was youtube. In this previous study, the researcher also found that story jumper was being the thrird most commonly used CALL tools. That means story jumper was also belonged the commonly used CALL tools. According to the data on this study, the pre service teachers commonly used story jumper as the material in whilst activity.

Otherwise on this research, story jumper was used to introduce vocabulary to young learners especially on second grade students of elementary school. Although there are so many sources of information about English vocabularies that facilitates students' learning such as dictionary, the learning media is also important to boost students' willingness in learning. Students cannot only be given a list or text to be memorized because it will make students bored easily and hard to understand the material. Therefore story jumper was designed to boost students' enthusiasm in learning vocabulary.

This research aims to investigate whether there is any significant effect of using story jumper on 2nd grade students' vocabulary comprehension. Based on the prior research, the researcher hypothesized the null hypothesis that story jumper does not give any significant effect on 2nd grade students' vocabulary comprehension. This experiment was done based on the following research question:

Is there any significant effect of using story jumper on 2nd grade students' vocabulary comprehension in SDN 1 Semarapura Kangin?

2. METHODS

This study is a quantitative research that is explained by using quasi experimental research design because the researcher wanted to measure the effect of using story jumper on 2nd grade students' vocabulary comprehension in order to get numerical data. In this design, there were two kinds of group that was being experimental group and control group. The experimental group was treated by using story jumper in teaching vocabulary while the control group was treated by using conventional teaching. Then at the end of the meeting, the two groups were given multiple choices test as the post-test to check their vocabulary comprehension.

This research was conducted in SDN 1 Semarapura Kangin. The participants were the 2nd grade students. There were 60 participants selected to run this study. The sample of this study were A class and B class of 2nd grade. In deciding which was being the experimental group and the control group, the researcher applied simple random sampling technique to avoid subjectivity. The researcher gave lottery to both classes in deciding their group. They chose one rolled paper in a bowl. The class that get a paper written 'experimental' was the experimental group. The control group got a paper that written 'control'.

This experiment was done to compare the effectiveness of using story jumper and conventional teaching in for 2nd grade students' vocabulary comprehension. The first group contained 30 students that was B class as an experimental group, while the second group contained 30 students that was A class as the control group. Both groups was taught the same kinds of vocabulary but in different ways of learning. The experimental group was taught through story jumper and the control group was taught through conventional teaching.

For the data analysis, the researcher analyzed the scores of the two groups by doing statistical analysis that is descriptive statistical analysis and inferential statistical analysis. The researcher uses SPSS to analyze the data. In the descriptive statistical analysis, the researcher analyzed the mean, median, mode, range, standard deviation, and variance. On the other hand, the researcher uses inferential statistical analysis in order to know whether there is a significant effect of using story jumper on 2nd grade students' vocabulary comprehension. The researcher did normality testing, homogeneity testing and hypothesis testing by using SPSS. The normality testing aims to test the normality of the data distribution. The researcher did the normality test by using Kolmogorov-smirnov. If the significant value of the data shows less than 0.05, it means the distribution of the data is not normal distribution. However, if the significant value is exceeds the value of 0.05, it means the data is normal distribution. Then homogeneity testing aimed to investigate whether the variance of the data are homogeneous or not. The homogeneity test was done before the students' post-test score is analyzed using t-test. The variances of the groups were consider as homogeneous when the significant value of the obtained data exceeds of 0.05, while means the samples are not homogeneous when the significant value is less than 0,05. Next was hypothesis testing that aimed to prove whether there is any significant effect of using story jumper on 2nd grade students' vocabulary comprehension or not. This test involved the two groups that was the

experimental group and the control group to see the different achievement between the two groups. This test was done after the data is already prove as homogeneous and have a normal distribution. Then the researcher used independent sample t-test to conduct this hypothesis testing. If $t_{obs} \geq t_{cv,}$ it indicates that the null hypothesis is rejected. It means there is significant effect between two samples (experimental and control group). Meanwhile if $t_{obs} \leq t_{cv}$, it indicates the null hypothesis is accepted. It means there is no significant effect between two samples (experimental and control group).

3. RESULTS AND DISCUSSION

3.1. Results

All the data was taken from 2nd students in two classes of SDN 1 Semarapura Kangin as the sample of this research. The investigation was about to compare the final test about vocabulary comprehension between A class as the control group and class B class as the experimental group. The hypothesis was there is no significant effect of using story jumper on 2nd grade students' vocabulary comprehension in SDN 1 Semarapura Kangin. The B class which was the experimental group was treated by using story jumper strategy in vocabulary learning. At the same time, the control group that was A class treated by conventional teaching. Here are the data analysis from the two groups.

Table 1
The Data Distribution of B Class in Final Test

Score Interval	Frequency	Commulative Frequency	Percentage
65-70	3	3	10%
71-76	8	11	26.67%
77-82	3	14	10%
83-88	6	20	20%
89-94	10	30	33%

Table 3 describes the class interval of B Class in Final Test about vocabulary. Students who scored 89-94 gained the most score (10 students) while the least score is 65-70 and 77-82 (3 students each score interval) so it means that the most score is 33% and the least score is only 10%.

Table 2
Data Description of B Class in Final Test

Measure	Value
N	30
Mean	81.7000
Median	85.0000
Std. Deviation	8.99483
Variance	80.907
Skewness	-.141
Std. Error of Skewness	.427
Kurtosis	-1.567
Std. Error of Kurtosis	.833
Range	26.00
Minimum	68.00
Maximum	94.00

Table 2 shows the calculation of the mean score, mean and median, standard deviation, variance, skewness, kurtosis, range, minimum and maximum score of 30 students in B class. The mean score is 81.70 and the median is 85.00. The close score of mean and median shows that the data is spread symmetrically. The standard deviation is valued 8.99 while the variance is 80.90. This data is normally distributed proved by the value of skewness <2.00 (-0.14) and the kurtosis <5.00 (-1.56). The range point is 26.00 spreads from 68.00 valued the minimum score and 94.00 valued as the maximum score.

Table 3
The Data Distribution of A Class Final Test

Score Interval	Frequency	Commulative Frequency	Percentage
40-45	8	8	27%
46-51	2	10	7%
52-57	4	14	13%
58-63	4	18	13%
64-69	11	29	37%

Table 3 describes the class interval of A Class in vocabulary Final Test. Students who scored 64-69 gained the most score (11 students) while the least score is 46-51 (2 students) so it means that the most score is 37% and the least score is only 7%.

Table 4
Data Description of A Class Final Test

Measure	Value
N	30
Mean	57.2000
Median	60.0000
Std. Deviation	10.03580
Variance	100.717
Skewness	-.375
Std. Error of Skewness	.427
Kurtosis	-1.434
Std. Error of Kurtosis	.833
Range	30.00
Minimum	40.00
Maximum	70.00

Table 4 shows calculation of the mean score, mean and median, standard deviation, variance, skewness, kurtosis, range, minimum and maximum score of 30 students in A class. The mean score is 57.20 and the median is 60.00. The close score of mean and median shows that the data is spread symmetrically. The standard deviation is valued 10.03 while the variance is 100.71. This data is normally distributed proved by the value of skewness <2.00 (-0.37) and the kurtosis <5.00 (-1.43). The range point is 30.00 spreads from 40.00 valued as the minimum score and 7.00 valued as the maximum score.

Table 5
Data Description of A Class Final Test

Measurement	Values
Homogeneity of Variance	
F	0.46
Sig.	0.00
Mean Score	
Experimental group	81.70
Control group	57.20
Difference	24.50
t Test	
t	9.95
df	58
Sig.	0.00

Table 5 shows the students achievement in final test between 30 students in A class and 30 students in B class. The homogeneity of variance valued F = 0.46 and Sig. = 0.00 indicates $p<0.05$. The t-test shows that there is significant difference between experimental group and control group through their post-test achievement proved with T =9.95, Df = 58, and sig. 0.00 ($p<0.05$). The difference of mean score between experimental group

and control group is 24.50 since the mean score of experimental group is higher than the control group. Therefore based on the t-test result, the null hypothesis was rejected.

3.2. Discussion

This experimental study was done to investigate whether there is any significant effect of using story jumper on 2nd grade students' vocabulary comprehension in SDN 1 Semarapura Kangin. Based on the inferential statistical data analysis of the post-test given to the both class, the experimental group which was taught by using story jumper get the better score than the control group which is taught conventionally. It could be seen through the number of mean score from the two groups. The experimental group that was B class gained 81.70 for the mean score while the control group that was A class gained 57.20 for the mean score. Then the difference of the mean score between the two groups is 24.5. The result indicates that the experimental group gains much higher achievement than the control group. Besides the number of Sig. (2-tailed) is 0.00 which indicates that there is significant difference between experimental group and control group through their post-test achievement. Based on the basis of decision making in the independent sample t-test by using SPSS, if the number of Sig. (2-tailed) lower than 0.05, there was significant differences between both group. It could be stated as significant because the number of Sig. (2-tailed) of the present analysis was lower than 0.05 that is 0.00.

Story jumper can avoid students' boredom in experimental group because they not only function their sense of sight but also their sense of hearing. Besides, this story is an application that can be added to every students' smart phones, so that students can learn whenever and wherever they want. It makes students can review what have they learnt in the school every time. It can be a more useful application rather than other applications that usually wasting most of their times. Otherwise, the control group that is students in A class that was treated by conventional teaching strategy were explained about the list of vocabulary to be remembered.

The above explanation shows that story jumper is effective to be used for the learning media to teach young learners vocabulary. It is clearly be seen by the post-test score that was gained by the experimental group that gained so much higher score than the control group. It proved that story jumper can be a recommended learning media to be used in the educational field, especial for young learners. Through story jumper, people can combine the traditional storytelling and technology. As we know technology has been a part of humans' life. Every time people cannot be apart with technology. It is one of the way to educate people through technology. It brings many benefits for teachers and students (Preradovic et al., 2016). For teachers, it helps teachers to vary their teaching style in order to avoid students' boredom. Therefore students are expected to be more enthusiastic in learning. Meanwhile for students, story jumper can make the activity more fun. Besides, it all makes the learning process effective and efficient.

4. CONCLUSIONS AND SUGGESTIONS

This study is a quasi experimental research which aimed to investigate whether there is significant effect of using story jumper on 2nd grade students' vocabulary comprehension in SDN 1 Semarapura Kangin. This study was conducted in SDN 1 Semarapura Kangin especially in A and B class of the 2nd grade students. This study is a quantitative research that was explained by using quasi experimental research design because the researcher wanted to measure using story jumper on 2nd grade students' vocabulary comprehension in SDN 1 Semarapura Kangin. In this design, there were be two kinds of group that was experimental group and control group. Those experimental and control group was taken from two classes of the 2nd grade students. In this reserach design, the experimental group was treated by using digital storytelling strategy in teaching vocabulary while the control group was treated by using conventional teaching. Then at the end of the meeting, the two groups was given post-test to check their vovcabulary comprehension. The result is that there is significant difference of the post-test achievement between experimental group and control group proved with T =3.05, Df = 90, and sig. 0.04 ($p<0.05$). That means there is significant effect of using story jumper on 2nd grade students' vocabulary comprehension.

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