THE EFFECT OF GAMIFICATION BASED ON BALINESE LOCAL STORY TOWARD STUDENTS’ LISTENING COMPREHENSION
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ABSTRACT
This research aimed at investigates the effect of Gamification based on Balinese local story as a teaching media toward 5th grade students’ listening comprehension at elementary school. The design was one group pretest and posttest that was focused on collecting the data used pretest and posttest in every meetings. The form of the pretest and posttest were multiple choice tests. The research population was the 5th grade of elementary schools student in Anturan village which consists of 95 students. Besides, the sample of this research was 5th grade of SD Negeri 2 Anturan that consists of 21 students. The result showed that there was a difference score of pretest and posttest. The mean score of pretest was (M= 43.37). Meanwhile the mean score of posttest was (M= 79.74). It means that the mean score of posttest was higher than pretest. The result of effect size was 12.011 that belong to the largest effect. The large result of the effect size proven that the students’ listening comprehension is improved by using Gamification based on Balinese local story.

Keywords: Gamification, Listening Comprehension, Young Learner

1. INTRODUCTION
The implementation of 4C in 21st century learning era has function to support the education. Rochmawati et al., (2019) mentioned the branches of 4C are critical thinking, creativity, communication, and collaboration. The whole branches have function to improve student’s problem solving especially young learner. As stated by Ball et al., (2016), young learner needs the implementation of 4C to develop the ability of problem solving and increase learning achievement especially English. Listening comprehension is a kind of English material that can be learnt since young learner. Nadig, (2013) explained, listening comprehension is a process that encourages of making and understanding the meaning in communication. Listening comprehension is an active listening process that consists of three important aspects such as recognizing speech sound, constructing the meaning, and connecting the information to be a knowledge (Ahmadi, 2016; Ergin in Bulut & Ertem, 2018; Gilakjani & Ahmadi, 2011; Hamouda, 2013). The three aspects of listening comprehension are able to create young learner to be an active participant in learning process. In the learning
process, listening comprehension focuses on developing the ability to understand meaning, phonology, vocabulary, and grammar mastery (Goh, 2000).

The role of listening comprehension is important in learning process. According to Babayigit, (2019), the main purpose of listening comprehension is to understand the message, emotion, and thought in communication accurately. In language acquisition, listening comprehension is a component that should be mastered. The process of mastering listening comprehension faces difficulties and problems. Ur, (1999: 111) argued that, there are five difficulties and problem of mastering listening comprehension. The first problem is about sound. The listener usually has problem to catch up the actual sound when learning listening comprehension for the first time. The second problem is the way to understand every word. Ur, (1999: 111) stated, this problem is occurred when listener misses the words that are effect the difficulty of the listener to understand the meaning. The third problem is based on tempo of the speaker. The listener faces the problem if the speaker speaks fast. Meanwhile, the problem will disappear if the speaker speaks slowly. It is occurred because listener does not have any authority to control the speaker’s tempo (Abbas Pourhosein Gilakjani & Sabouri, 2016). The frequency of listening is the fourth difficulty. It is influenced by the ability of listener should listen something more than once to understand the meaning. The last problem focuses on duration of listening activity. The long duration of listening activity creates the boring situation in the learning. The implementation of effective learning process is needed to decrease boring situation in the learning process.

The listening comprehension problems were discovered at SD Negeri 2 Anturan. Based on the observation, the whole listening comprehension problems by Ur, (1999: 111) were found on 5th grade student of SD Negeri 2 Anturan. It was proven by there was no improvement of students especially in listening comprehension because students got English material on 5th grade for the first time. The listening comprehension problem is caused by several factors. The main factor is the quality of the sound. The bad quality of the sound to deliver listening comprehension material affected to create the difficulty of understanding meaning (Abbas Pourhosein Gilakjani & Sabouri, 2016). Moreover, the research by Renukadevi, (2014) argued that, listening comprehension problems that were related to catch up sound and understand meaning were caused by the lack of ability of listening comprehension. This factor was caused by students tended to be lazy to build vocabulary, the problem of accent and pronunciation when learning new language, and the effort to understand the words. In addition, tempo, frequency, and duration problems were caused by students’ listening stamina, concentration power of students, and interference of listening process environment Renukadevi, (2014). The implementation of listening comprehension is
equitable since young learner to create students problem solving of listening comprehension Eken & Dilidüzgün, (2014).

The problems of listening comprehension can be solved by using a proper teaching media. Teaching media is an equipment to create effective and efficient learning process Padmadewi et al., (2017). Mobile phone is a media who can be used to teach listening comprehension. The research by Kodir Al-Baekani & Ridwan, (2018) proven that, student tends to interest using mobile phone to learn listening comprehension. It is supported of the research by Hwang et al., (2014) & Rahimi & Soleymani, (2015) argued that, the use of mobile phone in learning process could increase student’s listening comprehension significantly. In addition, the 5th grade students of SD Negeri 2 Anturan have mobile phone. The use of mobile phone to teach listening comprehension should be supported by proper application. The application who supports to teach listening comprehension was Gamification. Therefore, Gamification was the teaching media to improve students’ listening comprehension.

Gamification is about a process of game thinking and game mechanics that has a purpose to increase user engagement and problem solving (Zichermann & Cunningham, 2011; Deterding et al, 2011). The use of Gamification is able to improve the learning process for example to increase students' motivation, engage students' behavior, and solve a problem in the learning process (Kapp, 2012). It is strengthened by Marczewski, (2012:04) & Hamari et al., (2014) argued that, Gamification has an effect to improve students’ behavior, engagement, motivation, and psychological outcome in learning process. In the learning process, Gamification is able to create different situation rather than conventional learning. As stated by Baptista & Oliveira, (2019), Gamification has function to provide effectiveness, fun, and enjoyable situation in learning process. The use of Gamification is effective to solve the problems in learning process. The research from Dehghanzadeh et al., (2019) & (Yanes & Bououd, (2019) argued that, the implementation Gamification had positive effect toward English achievement in learning process. It can be concluded that, Gamification is an effective media to achieve English especially listening comprehension.

Gamification had been developed by Nitiasih, Mahayanti, & Budiarta, (2019). This Gamification is implemented to young learner especially at elementary school. The content of this Gamification is local story. Local story is the expression of culture through speech that has a relationship with the aspect of human life for example religion, beliefs, laws, economic activity, and the social value of the society (Soetarno, 2018:11). The application of local story is suitable for young learner because young learner has prior knowledge and easy to understand about local story. In addition, the characteristic of young learner especially fifth
grade tends to learn concrete things Piaget, (1983) who makes local story is a proper content of the Gamification. Besides as a teaching media to solve listening comprehension problems, the use of Gamification has purpose to deliver 13 moral values of local story (Suwardi Endraswara, (2013) & Setyawan et al., (2017) and to conserve culture especially Balinese culture. There are five Balinese local stories that implicated such as *I Ketimun Mas, Manik Angkeran, I Sugih and I Tiwas, I Cupak and I Gerantang, and Siap Selem*.

The research by Alomari et al., (2019) & Antonaci et al., (2019) argued that, Gamification has benefits for learning process especially students’ motivation and engagement. These previous studies did not explain about the use of Gamification for English material such as listening comprehension. It can be concluded, there is no study about the relationship between Gamification and listening comprehension. Furthermore, the research by Papp, (2017) & Gafni et al., (2018) did not explain the content of Gamification that was used for conducting the data. Meanwhile, this research focused on the implementation of Balinese local story as the content of Gamification. The research emphasized to know whether or not the significant effect of Gamification based on Balinese local story toward listening comprehension. This study was conducted on 5th grade students of SD Negeri 2 Anturan.

2. METHOD

A. Type of Research

The type of the research was experimental research who implemented one group pretest posttest design. Fraenkel et al., (2012) explained there are two characteristics of this design. First, there is no control group for comparison which is means there is only single group participant of the research. The same assessment and treatment are given because the participants are part of single condition. Second, the implementation of pretest and posttest are the part of linear ordering to conduct the data before and after treatment.

![Figure 1 The design of One group pretest and posttest](Source: Fraenkel, Wallen, & Hyun, 2012)
B. Research Variable

There are two variables of this research such as Independent variable and Dependent variable. The Independent variable was Gamification based Balinese local story. Meanwhile, the Dependent variable was listening comprehension.

![Figure 2 Research Variable]

C. Research Setting

This study was conducted in elementary schools at Anturan village. There were three elementary schools at Anturan village such as SD Negeri 1 Anturan, SD Negeri 2 Anturan, and SD Negeri 3 Anturan. The researcher used the elementary schools at Anturan village because they fulfilled the criteria of one group pretest and posttest design that had only one group. It was supported by the characteristics of the elementary schools such as the level of students were same, the English material and instruction were same, and the location of the elementary schools in village that had purpose to know the different from using Gamification in village and city. Besides, the facilities of SDN 1 Anturan, SDN 2 Anturan, and SDN 3 Anturan were suitable with this research such as LCD, Audio-speaker, White board, and other equipment. This study had been conducted in six meetings that focused on giving treatment using Gamification based on Balinese local story toward listening comprehension.

D. Research Population and Sample

1. Population

The population of this research was the 5th grade student of elementary schools at Anturan village in academic year 2019/2020.

<table>
<thead>
<tr>
<th>School</th>
<th>Class</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDN 1 Anturan</td>
<td>V</td>
<td>37 students</td>
</tr>
<tr>
<td>SDN 2 Anturan</td>
<td>V</td>
<td>21 students</td>
</tr>
<tr>
<td>SDN 3 Anturan</td>
<td>V</td>
<td>37 students</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>95 students</td>
</tr>
</tbody>
</table>

(Source: Data Sekolah Dikdasmen Kemendikbud, 2019)
2. Sample

The 5th grade students of SD Negeri 2 Anturan were a sample of the research that consisted of 21 students. The number of 21 students could be used in experimental research. As stated by (Sugiono: 2007: 74), the number of 10-20 samples can be used for collecting the data in experimental research. In addition, 21 students fulfilled the number of sample in experimental research.

E. Data Collection Technique

The data collection was finished by several processes. The beginning process was to get permission and observation for conducting the data. Then, the process of preparing instrument created pretest and posttest as instrument for collecting the data. The treatment instrument focused on determining the suitable Gamification based on Balinese local story. The last was preparing the supporting instrument such as lesson plan or teaching scenario. The whole instruments were consulted before using to conduct the data. The pretest was conducted before the treatment. The treatment by using Gamification based on Balinese local story to the group. The process of conducting the posttest after the treatment of Gamification based on Balinese local story. After conducting the data of pretest and posttest, the analysis of the data were done to determine whether or not the effect of the Gamification based on Balinese local story. The last was to give a conclusion of the effect of Gamification based on Balinese local story toward students’ listening comprehension.

F. Data Analysis

The data analysis was done after conducting the result of pretest and posttest. The use of SPSSX 24 program had function to determine the descriptive and inferential analysis of the data. The descriptive analysis was included mean, median, variance, standard deviation, maximum and minimum score. In contrast, the inferential analysis involved normal distribution, t-test, and effect size. The inferential analysis had purpose to determine whether or not the significant effect of Gamification based on Balinese local story toward listening comprehension.
3. FINDINGS AND DISCUSSION

A. Findings

1. The Result of Descriptive Analysis

Table 2 The Result of Mean Summary

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td>Pretest</td>
<td>43.47 44.71 37.42 46.33 42.00 46.28</td>
</tr>
<tr>
<td>Posttest</td>
<td>76.76 80.95 81.52 80.23 79.61 79.38</td>
</tr>
</tbody>
</table>

Source: Data Analysis of January 02, 2020 SPSS –X VERSION 24

Based on the result of the mean summary, it can be concluded that the mean summary of post-test was higher rather than mean summary of pre-test (79.74 > 43.37).

Table 3 Descriptive Analysis of Pre-test and Posttest

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
<th>Max Score</th>
<th>Min Score</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>43.37</td>
<td>3.681</td>
<td>43.16</td>
<td>50.83</td>
<td>36.17</td>
<td>13.550</td>
</tr>
<tr>
<td>Post-Test</td>
<td>79.74</td>
<td>2.188</td>
<td>79.83</td>
<td>84.00</td>
<td>76.33</td>
<td>4.449</td>
</tr>
</tbody>
</table>

From the result of descriptive analysis, the post-test instrument was higher rather than pre-test instrument except the standard deviation and variance.

In order to identify the significant difference of mean score between pretest and posttest, T-test was conducted. Before conducting T-test, the data distribution was analyzed first. It aimed to select the T-test type that will be used. If the data are normally distributed, it will be analyzed with parametric test whereas if the data are not normally distributed, non-parametric test is used. Data are categorized normal, if the value of Kolgomorov-Smirnov is higher than .05. The result of normality was summarized in Table 4.

2. The Result of Normality Test

Table 4 The Result of Normality Test

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Statistic</th>
<th>Kolmogorov-Smirnov</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary Mean Pretest</td>
<td>.174</td>
<td>21</td>
<td>.097</td>
</tr>
<tr>
<td>Summary Mean Posttest</td>
<td>.120</td>
<td>21</td>
<td>.200</td>
</tr>
</tbody>
</table>

From the result of normality test as shown in Table 4.3, it was found the value of Kolgomorov-Smirnov for pretest is .097 while for posttest is .200. Since the value of Sig. for pretest and posttest is higher than .05, the data are categorized normally distributed. Therefore, the paired sample t test can be done.

3. Hypothesis Testing

After the data were categorized normally distributed, hypothesis testing was conducted to know whether there was any significant effect of using Gamification based on
Balinese local stories as teaching media towards the 5th grade students’ listening comprehension at elementary school. The hypothesis testing was conducted by using paired sample t-test. There were two qualifications of determining the decision whether the hypothesis was rejected or accepted. If the value of the $t_{obs}$ was lower than $t_{cv}$, the alternative hypothesis was rejected. Meanwhile, if the $t_{obs}$ was higher than $t_{cv}$, the alternative hypothesis was accepted. The result of hypothesis testing can be seen in Table 5.

Table 5 The Result of Hypothesis Testing

<table>
<thead>
<tr>
<th>Paired Samples Test</th>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean_Pretest - Mean_Posttest</td>
<td>36.373 02</td>
<td>4.54725</td>
<td>.99229</td>
<td>38.44290</td>
<td>34.30313</td>
</tr>
</tbody>
</table>

The result of paired sample T-test showed that the value of Sig. (2-tailed) was .000. This value was lower than the level of standard ($\alpha=.05$). It indicates that there was significant difference between pretest and posttest. In order to determine the hypothesis, the value of the $t_{obs}$ and $t_{cv}$ were compared. From the result of the t-test analysis, the value of the $t_{obs}$ was 36.656. In addition, the value of $t_{cv}$ for df 20 was 1.725. Therefore, the $t_{obs}$ (36.656) > $t_{cv}$ (1.725). Since the value of $t_{obs}$ was higher than $t_{cv}$, it can be stated that the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted. This result showed that there was significant effect of Gamification based on Balinese local stories as teaching media on the 5th grade elementary school students’ listening comprehension at elementary school.

4. Effect Size

The effect size test gives information about the magnitude of the experimenter effect between pre-test and post-test. The effect size was analyzed by using Cohen’s $d$ measurement. The larger the effect size the stronger the relationship between two variables. There are three classification of effect namely small ($d = 0.2$), medium ($d = 0.5$), and large ($d \geq 0.8$). The result of effect size can be seen in Table 6.

Table 6 Effect Size Test Result

<table>
<thead>
<tr>
<th>Mean Score</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.37</td>
<td>79.74</td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>3.681</td>
<td>2.188</td>
</tr>
<tr>
<td>Sample</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Cohen d Result</td>
<td>12.011</td>
<td></td>
</tr>
</tbody>
</table>
From the result of effect size test, the value of Cohen d as shown in Table 6 is 12.011. This indicates that the effect of treatment is large.

B. Discussion

1) The Implementation of Gamification Based on Balinese Local Story Toward Listening Comprehension

The implementation of Gamification based on Balinese local story was based on the theory by Gros, (2007). According to Gros, (2007), there are four steps in implementing Gamification such as experimentation, activity, discussion, and reflection. The whole process focused on using Gamification based on Balinese local story as a teaching media to improve listening comprehension. The first process is experimentation that emphasizes preparation process before Gamification was implemented in learning process (Gros, 2007). There were several activities of experimentation such as (1) determining Gamification based on Balinese local story, (2) creating lesson plan, (3) conducting material, and (4) making pre-test and post-test. The activities of experimentation process was implemented the value of 4C. As stated by Ball et al., (2016) the implementation of 4C increases the ability of young learner achievement and problem solving in learning process. So that, the used of Gamification based on Balinese local story was able to solve the problem in listening comprehension.

The second step is activity process. The term of activity is how to use Gamification in learning process (Gros, 2007). The implementation of Gamification based on Balinese local story was done by showing the Gamification through LCD. It was done because the regulation of SD Negeri 2 Anturan prohibited students to bring mobile phone. This activity also kind of teaching listening comprehension namely intensive teaching listening. Intensive teaching listening is a process to teach listening comprehension by doing the activity in the class room (Harmer, 2007:304). The implementation of Gamification based on Balinese local story divided into two parts such as individual and group. The individual activity encouraged students to listen and understand the Balinese local stories. It was the advantage of Gamification based on Balinese local story that provided audio visual to students by showing the picture of stories and telling the stories directly. Meanwhile, the group activity focused on playing the whole levels of Gamification based on Balinese local story based on the instruction. This group activity emphasized students to answer the questions and communicate in learning process.

After the activity process was done, students felt significant difference in learning English especially listening comprehension. The students felt enthusiastic when playing Gamification based on Balinese local story. It was proven by the response of students was...
very focus while listening the stories and tended to understand whole stories although there were any problems for example some words did not catch up the meaning by the students. Besides, the enthusiasm was shown by the response of the students when trying to answer the questions based on the game in Gamification. They were excited for raising their hand while answering the questions. Furthermore, the students motivation also increased in learning English when they could answer the questions correctly. It showed the benefit of Gamification as a teaching media which is able to increase students engagement in learning process (Deese, 2014). It was supported also by Marczewski, (2012) & Hamari et al., (2014) stated that, Gamification has an ability to increase students motivation and engagement in learning process. In addition, the enhancement of students’ engagement and motivation was supported by the characteristic of young learner is enthusiastic in certain situation. As stated by Cameron, (2001) & Harmer, (2007), young learner is enthusiastic when learning something new more than the teacher in learning process. The implementation of Gamification based on Balinese local story was something new for their learning process.

The next step is discussion. Gros, (2007) explained that discussion is an activity to achieve the learning objective in learning process. In this case, discussion focused to provided exercise or worksheet related to Gamification based on Balinese local story. Giving the worksheet or exercise was able to create students’ understanding toward concrete object. According to Piaget, (1983) 11 eleven years old of young learner or 5th grade students to introduce and learn concrete things. It is supported also by Harmer, (2007) the characteristic of young learner tends to understand concrete things rather than absurd things. So, that giving worksheet or exercise in discussion step was effective for understanding concrete objects especially related to listening comprehension. Furthermore, discussion step was able to solve listening comprehension problems by Ur, (1999) is the difficulties when catching actual sound of foreign language and understanding the meaning of every words. Those problems could be solved because the treatment by using Gamification based on Balinese local story was able to make students comprehend the story and improve the vocabularies after doing listening comprehension activity related to Gamification.

The reflection is the last step of the implementation of Gamification. The statement of Gros, (2007), explained that reflection is the end step that provides the opportunity to students to conclude and summarize the learning process especially in using Gamification based on Balinese local story. In this process, students were encouraged to use the cognitive development to summarize the learning process. The cognitive development assisted to increase student critical thinking. According to Deese, (2014) Gamification is an effective media to increase student cognitive development. It was proven by the ability of students to
give an opinion about the implementation of Gamification based on Balinese local story.

2) The Significant Effect of Gamification Based on Balinese Local Story Toward Listening Comprehension

The implementation of Gamification based on Balinese local story was effective to listening comprehension. The students listening comprehension problems by Ur, (1999) about the problems when listening something too fast and the difficulties to understand words if listening only once. These problems could be solved by Gamification based on Balinese local story because the tempo when telling the story of Gamification was very slow and suitable with the ability of 5th grade students. Besides, the sound and audio of narrator told the Balinese local stories was very clearly. To give the opportunity of increasing listening comprehension, Gamification was completed by the text accordance with Balinese local story that was shown. So, students had opportunity to conform what they listened to the text. In addition, boring situation which was occurred when implementing conventional learning can be solved by the implementation of Gamification based on Balinese local story because using game and technology was unique and fun for students in learning process.

The improvement of students listening comprehension was also shown by the result of pre-test and post-test. The result showed that the mean score of post-test was higher rather than the mean score of pre-test (79.74 > 43.37). Based on the result proved that, Gamification based on Balinese local story was effective to improve students’ listening comprehension rather than conventional learning. It was also proven that, teaching media for example Gamification based on Balinese local story was able to create effective learning process.

4. CONCLUSIONS

Gamification based on Balinese local stories as teaching media gave significant effect towards fifth grade students’ listening comprehension. It was proven by the result of the descriptive and inferential statistics analysis. Based on the result of descriptive analysis, the mean score of posttest was higher than pretest (79.74 > 43.37). It indicated that after implementing treatment through Gamification based on Balinese local stories the students were able to achieve better performance and were able listened the story better. The inferential analysis which consisted of hypothesis testing (paired sample t-test) and effect size showed that the t-observed of the data was higher than the t critical value. The comparison between t-observed and t critical value was (36.656 > 1.725) which means that there was significant effect of using Gamification based on Balinese local stories as teaching media towards the 5th grade students’ listening comprehension. It was also supported by the result
of effect size. It found that the value of Cohen’s $d$ was 12.011. It indicated that the effect of treatment towards the sample was large

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Sixth Grade Students’ Listening Comprehension of the Story Text. (2019). *International Journal of Educational Methodology, 5*(1), 35–42. https://doi.org/10.12973/ijem.5.1.35


