THE EFFECTIVENESS OF DST TO DEVELOP SPEAKING ABILITY FOR ENGLISH CLUB STUDENTS

Septiana Wulandari, Clarry Sada, Zainal Arifin
English Education Study Program of Languages and Arts Education Department
Teacher Training and Education Faculty of Tanjungpura University
Email: sepwulan@yahoo.com

Abstract: The purpose of this research is to investigate the effectiveness of using Digital Storytelling (DST) to develop student’s ability in speaking for English Club students of SMK-SMTI Pontianak in academic year 2014/2015. The method used in this research is pre-experimental study that administers pre-test and post-test to measure the effectiveness of the treatment. The sample of this research was 8 members of English Club. The researcher used the measurement technique to collect the data and the tool of data collecting was oral performance tests. The researcher used the t-table α (0.05) and the result of the t-test is 5. The t-table with degree of freedom of 7 is 2.365. The result of computation of t-test in this research is higher than t-table. It proves that the use of Digital Storytelling is strongly effective to develop student’s ability in speaking.

Key Words: Digital Storytelling (DST), Speaking Ability

Peaking is an important skill which takes a role in communication. Meyer (2009:5) says, “In linguistics, it is commonly noted that speech is primary and writing secondary. Linguists take this position because all languages are spoken, and only a subset of these languages are written.” By speaking, people are able to express
and convey their ideas and thought to build communication. As defined by Brown (2001:267) that speaking is an interactive process constructing meaning that involves producing, receiving, and processing information. Meanwhile, speaking ability means the ability to communicate with people using the appropriate language to deliver the information and convey the message to be understood by the listener. Brown (2001:267) stated that when someone can speak a language, it means that he can carry on a conversation reasonably competently. The successful of speaking is shown by when the speaker is able to speak relevantly, easily comprehended, and acceptable level to listener.

Speaking is the most frequently used language skill. In the learning process, English is included as required subject in every high school in Indonesia. Students are expected to be able to communicate in English. Furthermore, developing speaking skill is necessity for English foreign learners. Nunan (1991:39) argued that success in learning a language is measured in terms of the ability to carry out conversation in the target language. Speaking skill is the priority skill to be learned. There are some components in speaking skill based on the characteristics of spoken language. Those components are commonly used to check the ability of students’ speaking skill. According to Pandiya (2013:45) there are four components in speaking skill which are pronunciation, accuracy, vocabulary, and fluency. Those four components is the whole package that affects the ability of students’ speaking skill.

There are generally two main forms of spoken language. They are dialogue and monologue. Here the researcher just focuses on monologue rather that the dialogue. In performing monologue, the speaker can focus on his or her speech because there will not turn takings in monologue activities. According to Brown (2001:251) says, “In monologue, when one speaker uses spoken language for any length of time as in speech, lectures, news broadcasts, and the like, the hearer must process long stretches of speech without interruption.” It will help the student to have full of concentration about what she or he wants to talk about without interruption. In teaching learning process, there are three categories of speaking. Brown (2001:274) states that speaking monologue is categorized as one of six classroom speaking performance to do in teaching learning process. The function of speaking as performance happened at speech, public talks, public announcements, retell story, telling story and so on. There are some characteristics of successful teaching speaking. In teaching speaking teacher has to know those characteristics. It will help the teacher to design and set up the activities properly. As stated by Ur (2009:120), there are four characteristics of successful teaching speaking monologue, they are indicated by learners talking a lot, participation is high, motivation is high, and the language is acceptable. Telling stories is one activity of speaking monologue that can cover the characteristics of successful teaching speaking. Telling a story is a way to express some feelings to convey people and build communication. It is not easy to tell a story. The storyteller needs to persuade someone to listen to the story.

There is a way to tell a story, such as Digital Storytelling. It involves technology to tell a story become more interesting. As stated by Norman (2011:4),
within second language framing, Digital Storytelling is particularly interesting because it is more motivating way to practice oral, written, and digital skill. Another one from Rule in Barrett (2006:1) defines, “Digital storytelling is the modern expression of the ancient art of storytelling. In Digital Storytelling, there is a process of writing about story, and adding multimedia elements of voice, imagery, and music to create visual story.” Using digital storytelling will trigger students to be an active student in their each project. So in the classroom, every student can make their own story and tell to their friends. It can build communication and make the class alive, because of student’s participation. Those statements above strengthened by Ohler (2008) in Miller (2009:14) states, “Interplay between writing, speaking, and listening, Digital Storytelling has a great potential to help students learn language”. By the time, when technology started to develop year to year, digital storytelling also grew in the society, even already used in the classroom. Hronovà (2011:31) agreed, Storytelling and Digital Storytelling improve communicative skill which means not only the ability to speak English fluently, but also the choice of appropriate language structures.

There are kinds of personal stories that can be developed into multimedia pieces, such as the story about someone important, the story about an event in life, and the story about a place in life. There are several steps to help storytellers keep focus on their personal story, how make a story to be a digital story, and how make a digital story to be a good digital story. By Digital Storytelling technique, the researcher does several steps. The steps were as follow: 1) Brainstorming step: students tried to brainstorm their ideas related with their interests, 2) Scripting step: students wrote their own stories, 3) Storyboarding step: students planned to construct a set of storyboard for production of Digital Story, 4) Recording and editing: students collected and edited media required for integration, 5) Presentation: students got a chance to present their own digital story with their classmates.

METHOD

The form of this research is quantitative research which is formed in pre-experimental study. Pre-experimental is the simplest form of research design. In a pre-experimental design either a single group or multiple groups are observed to be given treatments to see whether it works or not to give some changes. Tuckman (1999:159) explained that pre-experimental studies include: One-shot case study design, one-group pretest-posttest design, and intact-group comparison design. Here, the researcher applies one group pre-test and post-test design. In the pre-experimental design, there is no control or comparison group, experimental instruction or treatment are given in a period of time, and have two tests, at the beginning and at the end.
The process is mentioned below:

\[ O_1 \quad \chi \quad O_2 \]

(Tuckman, 1999:160)

**Note:**
- \( O_1 \): Observation 1
- \( \chi \): Treatments
- \( O_2 \): Observation 2

As the illustration of the method above, the researcher will give a pretest as \((O_1)\) to the students. The function of the pretest is to check student’s prior ability before given treatment. Pre-test in this research is used to measure the student’s ability in speaking. Then the researcher will give once treatment \((\chi)\) to the students. After that, the researcher will give a posttest as \((O_2)\) to know the achievement of the sample after given treatment. Post-test here is used to measure the student’s ability in speaking whether there is an effect after given treatment or not.

The population of this research includes students of SMK-SMTI Pontianak who join in English Club academic year 2014/2015. Polit and Hungler (1999:37) refer to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. Sample is a part of population. The researcher takes 8 students as the sample by purposive sampling technique. As stated by Cohen (2007:115) that Purposive sampling is the sample which has been chosen for specific purposes.” The sample in this research is considered to represent the population. The researcher has already observed the students when she was teaching in that school. Those 8 students are qualified to represent the student’s ability in speaking English based on the aim of this research.

In this research, measurement technique will be applied in collecting the data to know the effect size of the treatment given. Pre-test and post-test are given in form of oral performances for student. Both tests which are pre-test and post-test had the similar form in order to see whether the treatment given has effects to the student’s performances. The students were to speak up on the story that they choose. The tool of data collecting was oral speaking test. In order to get sufficient data, the oral performance in pre-test and post-test of student’s speaking test were recorded in form of video.

In analyzing the data, the writer followed the steps:

1. The students’ individual score of pretest and posttest

\[ X = S \times N \]

**Note:**
- \( X \) : The student’s individual score
- \( S \) : The total point of student’s speaking score
- \( N \) : The maximum level of score (5)
2. The difference for each pair of scores
\[ D = X_1 - X_2 \]


Note:
\( D \): The difference for each pair of scores
\( X_1 \): Student’s pretest score
\( X_2 \): Student’s posttest score

3. The mean of difference score
\[ \overline{D} = \frac{\sum D}{N} \]


Note:
\( \overline{D} \): The mean of difference score
\( \sum D \): The sum of the difference score
\( N \): The number of students

4. The standard deviation of the difference scores
\[ S_D = \sqrt{\frac{\sum D^2 - (\sum D)^2}{n(n-1)}} \]


Note:
\( S_D \): The standard deviation of the difference scores
\( \sum D^2 \): The sum of the squared difference scores
\( \sum D \): The sum of the difference score
\( n \): The number of students

5. The estimated standard error
\[ S_D^* = \frac{S_D}{\sqrt{n}} \]

(Furlong, N.E., Lovelace, E.A., and Lovelace, K.L., 2000:335 )

Note:
\( S_D^* \): The estimated standard error
\( S_D \): The standard deviation of the difference scores
\( n \): the number of students
6. The test significant of the students’ score

\[ t_{obtained} = \frac{\overline{D}}{S_D} \]

(Furlong, N.E., Lovelace, E.A., and Lovelace, K.L., 2000:335)

Note:
- \( t_{obtained} \): The test significant of the students’ score
- \( \overline{D} \): The mean of difference score
- \( S_D \): The estimated standard error

7. The effect size analysis

Effect Size is a measure of the effectiveness of the treatment. The effect size is computed by using the effect size formula written by Smith (1988) cited in Sari (2003). The formula is:

\[ ES = t \sqrt{\frac{1}{N}} \]

Note:
- \( ES \): Effect Size
- \( t \): The result of t-test
- \( N \): Number of students

### Table 2 The Criteria of Effect Size

<table>
<thead>
<tr>
<th>Effect Size</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–0.20</td>
<td>Weak effect</td>
</tr>
<tr>
<td>0.21–0.50</td>
<td>Modest effect</td>
</tr>
<tr>
<td>0.51–1.00</td>
<td>Moderate effect</td>
</tr>
<tr>
<td>&gt;1.00</td>
<td>Strong effect</td>
</tr>
</tbody>
</table>

(Cohen, et al, 2007:521)

### Table 3 The qualifications of students’ score of pre-test and post-test

<table>
<thead>
<tr>
<th>Range</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-100</td>
<td>Excellent</td>
</tr>
<tr>
<td>66-79</td>
<td>Good</td>
</tr>
<tr>
<td>56-65</td>
<td>Average</td>
</tr>
<tr>
<td>30-55</td>
<td>Poor</td>
</tr>
<tr>
<td>0-29</td>
<td>Fail</td>
</tr>
</tbody>
</table>

(Arikunto, 2003)
FINDINGS AND DISCUSSION

Findings
In this research, pre-test was held on May 21, 2015 and it was taken by 8 students. In pre-test, the researcher administered the same item that would be used in post-test. Here, the treatment by applying Digital Storytelling technique had not done yet. When administering the pre-test, the researcher got the students to tell their embarrassing story. After that, the researcher recorded the students’ performance. Next, the recordings were analyzed.

After the data were collected, those are put into the formula. The result of the computation can be seen below.

1. The analysis of each pair of scores.
   \[ D_{student\ i} = X_2 - X_1 = 90 - 70 = 20 \]

The calculation of each pair of scores of student 2 until 8 uses the same formula.

<table>
<thead>
<tr>
<th>No.</th>
<th>Student's Code</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>D</th>
<th>D2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MI</td>
<td>70</td>
<td>90</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>2</td>
<td>ND</td>
<td>75</td>
<td>85</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>AF</td>
<td>75</td>
<td>85</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>RM</td>
<td>75</td>
<td>90</td>
<td>15</td>
<td>225</td>
</tr>
<tr>
<td>5</td>
<td>LR</td>
<td>40</td>
<td>60</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>6</td>
<td>YL</td>
<td>60</td>
<td>65</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>80</td>
<td>95</td>
<td>15</td>
<td>225</td>
</tr>
<tr>
<td>8</td>
<td>IA</td>
<td>55</td>
<td>90</td>
<td>35</td>
<td>1225</td>
</tr>
<tr>
<td></td>
<td>( \sum )</td>
<td>530</td>
<td>660</td>
<td>130</td>
<td>2700</td>
</tr>
<tr>
<td></td>
<td>MEAN</td>
<td>66.25</td>
<td>82.5</td>
<td>16.25</td>
<td>337.5</td>
</tr>
</tbody>
</table>

The analysis of the mean of the different score
\[ \bar{D} = \frac{\sum D}{N} = \frac{130}{8} = 16.25 \]

After having once treatment, the students had a post-test. The post-test is purposed to measure students’ ability in speaking after being given the treatment. The post-test was held on June 16, 2015. The instruction and item test in the post-test was similar to the item in the pre-test. The students’ performance was recorded then analyzed. The mean score of the students’ pre-test was 66.25. It is categorized as
Good. The mean score of pre-test showed the student had enough prior ability in English. On the other hand, the mean score of the students’ post-test was 82.5. The score can be categorized as Excellent. It means pre-test and post-test has different category in score. It was improving from Good to Excellent. From the data, the researcher got result that the mean score of pre-test and post-test were quite significant difference. It showed that the treatment given affecting students’ in developing their speaking skill.

2. The analysis of standard deviation of the different scores

\[ S_D = \sqrt{\frac{\sum D^2 - (\sum D)^2}{n-1}} \]

\[ S_D = \sqrt{\frac{2700 - (130)^2}{8}} = 9.165 \]

3. The analysis of estimated standard error

\[ S_D = \frac{S_D}{\sqrt{n}} = \frac{9.165}{\sqrt{8}} = \frac{9.165}{2.82} = 3.25 \]

4. The analysis of test significance of the student’s score

\[ t_{obtained} = \frac{D}{S_D} = \frac{16.25}{3.25} = 5 \]

5. The analysis of effect size

\[ ES = t \sqrt{\frac{1}{n}} \]

\[ ES = 5 \sqrt{\frac{1}{8}} = 1.76 \]

The result of the t-test shows that the obtained t-value is 5 which is higher that t-table value with 7 the degree of freedom which is 2.365 at the 0.05 level. It is also strengthened by the result of the computation of the effect size of the treatment which is 1.76 (>1.00) or categorized has the strong effect.

Discussion

It is found that the use of Digital Storytelling technique is highly effective to develop student’s ability in speaking. It can be concluded that the students’ speaking ability are improved. In pre-test, the mean score of the students’ achievement was 66.25. The treatments showed the significant difference between pre-test and post-test. In post-test, the mean score of the students in post-test was 82.5. This progress
showed that teaching speaking by Digital Storytelling was successful to improve students’ achievement. The improvement of the achievement was considered an effect of the treatment. The treatment in this research is the use of Digital Storytelling technique in teaching speaking as daily communication.

In the treatment, there were some processes to create digital storytelling. There were some steps which took a role in the development of four components in speaking skill. Before starting to create digital story video, the students wrote a script of their own story. Writing a story brought the grammatical structures to the students, because to convey the listeners, students should write a story in the correct grammar. It would help the listener understand the story. Therefore, students had to pay attention to correct their grammar before continuing to the next steps. In that step, students were used to write and speak in the correct grammar. Second, the development of vocabulary happened in the process of writing a script. The students enriched their vocabulary by choosing appropriate words to explain their ideas in the story. They were able to find the words which interpreted their ideas in dictionary. After writing a script, the students practiced their pronunciation before recording their own voice. In this step, students found the way to pronounce the words correctly by searching those phonetic transcription audio in electronic dictionary. When recording student’s own voice, the development of fluency happened. Students had to tell their own story with a good pronunciation. Students listened what they had recorded and checked whether the voice was already fluent or not. They did some practices and repeated the recording to get the good pronunciation and fluency. From some processes in creating digital story, the researcher assumed that Digital storytelling technique helped the students in developing their ability in speaking.

In conducting this research, applying digital storytelling technique as a project for students changed the atmosphere of the classroom. Everyone in the class was active with their project. Because of students’ participation, it made the atmosphere of the classroom alive. It was also found that the students were motivated to learn speaking by telling their own personal stories in more enjoyable and interesting ways. The students had more chances to interact and build communication with their friends in creating their own project. They can share what the story was about. The activities in the classroom was not totally handled by the students itself, the role of the teacher here was guiding and monitoring students to finish their project. The teacher also reminded the students to not only focus on technology aspects but also the content of the story.

In conclusion, the alternative hypothesis which is stated the use of Digital Storytelling is effective to develop student’s ability in speaking for English Club students of SMK-SMTI Pontianak in academic year 2015/2016 and categorized as “Strong Effect”. It means that the hypotheses A, B, C are rejected and Hypothesis D is accepted.
CONCLUSIONS AND SUGGESTIONS

Conclusions

Referring to the research finding, the researcher draws some conclusions. The conclusions are that 1). The use of Digital Storytelling technique is strongly effective in developing student’s ability in speaking for English club students of SMK-SMTI Pontianak in academic year 2015/2016. 2). Digital Storytelling technique develops student’s ability in speaking. It can be seen from the difference of the mean score of pre-test and post-test. The mean score of post-test (82.5) is better than the mean of pre-test (66.25). 3). The effect of the use Digital Storytelling technique is strong in developing student’s ability in speaking since the effect size is 1.76 (>1.00) or categorized has the strong effect. 4). By Digital Storytelling technique, students were able to use simple past tense accurately in telling their own personal story. 5). By Digital Storytelling technique, students had many chance to practice orally, then they came up with better pronunciation, fluency and had a good diction in telling the story. 6). By Digital Storytelling, every student in the classroom participated to make class alive. They were active in doing their own project and had interaction with their classmates when sharing about the description of their story.

Suggestions

Since suggestions are referred to research finding in the previous research, the researcher recommends these following suggestions: 1). Digital Storytelling technique can be alternative solution for the teacher to teach speaking for students in more enjoyable and interesting ways than conventional learning. 2). In applying Digital Storytelling technique in the classroom as a project for student is not easy. Teacher and students have to make a lot of effort to be successful in learning. Teacher has to learn how to create Digital Story video. Teacher also has to be master in technology because the role of teacher is not only monitoring, but also as facilitator in the learning process. Before applying Digital Storytelling technique in the classroom, teacher has to make it sure whether the students are already familiar with multimedia technology or not. Then teacher has to consider the school’s facilities, such as; computer, internet connection, LCD projector, speaker, and etc. 3). In applying Digital Storytelling as a project, all the things should be prepared and organized well. It is suggested preparing teaching materials and media that are related to the topic and appropriate for students’ level. Teacher has to give clear instructions and tell the objectives to avoid the students from misunderstanding in creating their own Digital Story. 4). When instructing student’s to create Digital Story, it is suggested to remind them to not only focus the technology itself, but also the content of their story and their speaking aspect, such as pronunciation, grammar, diction, and fluency. 5). To avoid wasting time, teacher has to manage the time. Teacher has to prepare lesson plan before teaching and also make the procedure in creating digital story. It will decrease consuming time ineffectively. When all those things are prepared well and teacher knows what he/she has to do, then everything will run smoothly and
effectively. 6). The other researchers can study on the use of Digital Storytelling technique with different focus or area of research.

REFERENCES


