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Digital Media Development for Pre-service English Teachers in EFL Class: Digital Storytelling for Writing Skill

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Abstract

Digital Story Telling (DST) media is one type of learning media that combines aspects of image visualization with sound effects. The merging of these two aspects takes advantage of the Audacity program and operates it with Windows Movie Maker. Visualization of images can be made freely by the designer and creator of the media. For educational purposes, images can be in the form of natural phenomena related to the concept of science about the material to be taught to students. The method used in this study uses a quasi-experimental method (quasi). This research was carried out to find out how much influence the use of digital storytelling-based media had on students' writing skills when viewed from their learning style. In this study, the population taken was students in semester 6 and 8 of the English Education Study Program at STKIP PGRI Bangkalan a number of 56 students. Before using the instrument to collect data, the instrument used needs to be tested first to determine the level of Validity Test, Test Reality Test, Normality data, Homogeneity Test (Similarity of Variance), after that a hypothesis test is carried out to answer the problem formulation using the Analysis of Covariance Test (ANCOVA) measurement. It can be seen that the P value is lower than alpha (0.05) meaning that the use of DST is effective for students' writing skill in recount text.

Keywords: Digital Storytelling, Computer-assisted language learning, recount text, teaching writing.

INTRODUCTION

The use of technology and information in education is very important, because if we do not master the flow of technology and information, we will be left behind. Moreover, the teacher's role is not only as a teacher but also as a facilitator, managerial and so on, so the teacher should be a source of knowledge and role model for students. In accordance with the objectives of the 2013 Curriculum, teachers are required to create innovative creative learning

situations with learning aids, namely appropriate and effective learning media. In this case, teachers as educators must be able to develop innovative learning media, in accordance with the curriculum, the development of student needs, as well as the development of information technology. One of the principles in the standard learning process is the use of information and communication technology to improve the efficiency and effectiveness of learning (Permendikbud Number 103 of 2014). As we all know that the development of information technology is currently running so fast. Eggen & Kauchak (2012) state that using technology is highly emphasized in today's education.

Storytelling was originally used by teachers in the learning process with the help of books or visual aids. Storytelling is done by telling an educational story, for example the tale of The Mouse Deer. The use of storytelling media allows students to live the story through the visualization provided. Currently, storytelling is transformed into multimedia digital storytelling, which does not only rely on oral stories but is combined with music, animation, interactivity and narration simultaneously. Thus, bringing a different atmosphere to students. Making digital multimedia storytelling is quite easy, because there are many applications that we can use, including VideoScribe, Powtown, Adobe Flash and many more according to user needs.

Digital Story Telling (DST) media is one type of learning media that combines aspects of image visualization with sound effects. The merging of these two aspects takes advantage of the Audacity program and operates it with Windows Movie Maker. Visualization of images can be made freely by the designer and creator of the media. For educational purposes, images can be in the form of natural phenomena related to the concept of science about the material to be taught to students.

Learning in the classroom, besides emphasizing on increasing students' understanding of the concepts they are learning, also seeks to optimize students' ability to speak in a foreign language (English). Teachers must be able to help students develop these skills. This situation causes the availability of audio-visual media for the classroom to be very necessary for the smooth learning process.

DST has one advantage, namely that the voice that is filled in can be the original voice of a native speaker or the voice of a teacher. If the teacher wants

to convey the original voice of a native speaker, the voice can be taken on several websites that provide it for free. This added value makes DST a type of learning media that is quite 'flexible'. That is, the flexibility lies in the type of material that can be chosen by the media compilers and the images and sounds can be chosen by themselves.

The research question to addressed on this research is that if the DST techniques used by the preservice teachers are better in the student outcome in writing recount text that the students taught without using DST. Theoretically, this research is useful in adding discourse for the development of knowledge in the field of education, especially in digital storytelling learning media as a support for the learning process. Practically, the expected result for students with the development of digital storytelling media is to help students understand learning and increase students' learning desire. For teachers, the expected result for students with the development of digital storytelling media is to facilitate teachers in the teaching and learning process in the classroom, especially in the theme of recount text learning or texts related to the past. For schools, it is hoped that digital storytelling learning media can be used for the teaching and learning process in the classroom.

REVIEW OF LITERATURE

Beatty (2010) defines computer-assisted language learning (CALL) as a process in which learners use computer media that results in an increase in their language skills. Computers as media provide very broad access to the use of instructional materials that can be developed with the computer equipment itself. Variations of instructional materials can be anything related to computers and the internet such as computer-based materials such as ebooks, interactive videos, and other computer products, even if supported by internet connectivity.

The rapid development of technology recently has been predicted by previous researchers that educators in education need to adapt to all the sophistication of technology. Chapelle (2003) concludes that the role of technology experts is closely related to the attitude of a teacher or researcher. The potential sophistication of existing technology will make access to technological products in a lifestyle. In this case, the teacher will adjust to the

possible ways to change the way they work and their professionalism in this case is teaching. The way of teaching if it is adjusted to the adjustment of technology will become more accessible to the information obtained. Not only that, the existence of the internet in this digital age is very supportive of work related to computers. Computer Assisted Language Learning (CALL) is a form of learning approach that involves the use of computers and can be supported by internet network connectivity. This approach is in accordance with the development of technology-based learning that is ideally carried out by teachers in the 21st century.

CALL in the 21st Century and its Barriers

The century of digital awakening, namely the 21st century, has been anticipated by researchers using technology in language education where the sophistication of computer technology will extend to other devices that are currently known as gadgets. Since the 1950s at the beginning of the development of CALL until now there have been many changes that have expanded the scope of CALL to Mobile-Assisted Language Learning. The existence of VCDs and DVDs has been replaced by smartphones that have supported fast internet connections. For example (Beatty, 2010) cites examples of the application of CALL in the 21st century era as follows:

a. Web browsing, Hotmail and Gmail, streams of audio and video

b. Ability to transfer email to mobile phone devices via smart phones.

c. The existence of an instant messaging application that has become a standard feature of smart phones.

d. Shop online

e. Calendar and contact features that can be entered additional data into a smart phone.

f. Worksheet via smart phone.

g. Digital photo settings, editing, printing, to uploading and printing services without cables, and publishing on the website (website).

Although computer-mediated language learning or CALL provides many advantages for students and teachers, but CALL also has some disadvantages where teachers must be aware of the barriers to its implementation in the classroom, especially in Indonesia. Barriers include the lack of equipment

available in schools. Both CALL's traditional and original materials require a number of computers, and most schools in Indonesia do not yet have adequate numbers. For Indonesian classes, this means that each school needs to provide 44-50 computers because there are around 44-50 students in each class or at least 20-25 computers if one computer is designed for every two students. Even the Internet requires a modem to be connected to the telephone network, which means that schools have to spend more money on monthly telephone bills. Another obstacle is the fact that there are still many teachers who are pessimistic about mastering computer technology. They feel there is too much to master and also the assumption that students may have more knowledge about computer technology.

In many workplaces and schools in many countries people use this technology according to their interests. Internet-based activities are currently vibrant and promising, but keep in mind that this use has some downsides as well. In addition to the high cost, even though there is an available budget, access is still limited. Online access has been very slow, and many educational institutions do not have enough money to build the most effective access. Another disadvantage is that Internet-based learning can become so obsessed with the wealth of available information that it can often obscure the service of language learning itself, and is a rather passive pedagogical activity. In addition, students may lose their way in their search on the internet; they need to be given directions that direct them to the location.

Research conducted by Rochmahwati and Pamungkas (2015) reveals that technology has an important role in everyday life, especially in the field of education. CALL (Computer Assisted Language Learning) as part of technology has contributed to the teaching of English, especially speaking skills. This expost facto study aims to determine the effect of using CALL (Computer Assisted Language Learning) on students' speaking skills. The population of this study were 83 students in the second semester of the STAIN Ponorogo English study program and 70 students as samples. The results of the ANOVA calculation table show that Fcount (392,483)> Ftable (7.08). Therefore, it can be concluded that there is a significant effect of using CALL on students' speaking ability with the regression equation model is Y=29650+0.715X. Based on these findings, lecturers and education practitioners are advised that

Computer Assisted Language Learning (CALL) be used as a medium in improving speaking skills.

Previous Research

The results of the second related research conducted by Rochmahwati and Pamungkas (2013) This study aims to improve students' speaking learning outcomes in English lessons and to find out students' responses to the application of the video-assisted CALL method. The research method used in this research is classroom action research which consists of two cycles. Data were collected using interviews (speaking test), assignments and observation sheets. The data were analyzed descriptively. The results showed that the application of the video-assisted CALL method could improve students' speaking learning outcomes in English lessons. The data collected during the pre-test in cycle I showed the average value of student learning outcomes was 48.56 and learning outcomes in the post-test conducted at the end of the first cycle showed an average value of 73.21 students with classical completeness of 50% . The implementation of the pre-test in the second cycle showed an average student score of 71.07 and the post-test results carried out at the end of the second cycle showed an average student score of 86.07 with 100% classical completeness and student responses to the application of video-assisted CALL were in the positive category.

The third research that has been carried out is that conducted by Sumintono, Wibowo, Mislan, & Tiawa (2012). This study investigates the use of ICT in learning by science teachers in junior high schools from various provinces in Indonesia. There were 151 teachers who participated in this study using mixed methods, for which they were asked to fill out a questionnaire and answer several open-ended questions. In many places, science teachers have started to use ICT in teaching and learning activities, either in classroom laboratories or computers, as well as using the internet as a learning resource. There were some problems that were revealed to be caused by technical issues (electricity, hardware facilities, computer viruses) or related to skills and management issues such as training, preparation and effective use.

METHOD

The method used in this research is research with a quantitative approach or commonly called quantitative analytical design in its implementation carried out through work stages or research performance structures that tend to test certain theories with a focus on variables or relationships between variables. Conventionally, the quantitative approach relies on the initial steps, namely the determination of the theme or research problem according to the object of research, the selection of variables that have been verified or determined to data analysis and interpretation, all of which must be relevant to the research objectives to be achieved.

The method used in this study uses a quasi-experimental method (quasi). Experimental research is one type of quantitative research that is very strong for measuring causal relationships. This research was carried out to find out how much influence the use of digital storytelling-based media had on students' writing skills when viewed from their learning style.

In experimental research, there are several forms of design, including pre-experimental design, true experimental design, factorial design, and quasi-experimental design. The design chosen by the researcher is a quasi-experimental design or a quasi-experimental design. According to Sugiyono (2017) the quasi-experimental design has a control group, but cannot fully control the external variables that affect the implementation of the experiment.

One type of instrument was used in this study, namely the learning outcome test.

1. Learning Outcome Test

According to Arikunto (2012), the learning outcome test is a series of questions or practice questions and other tools used for skills, knowledge, intelligence, abilities and talents possessed by individuals or groups. The test that will be used in this research is a writing test with a recount or essay genre related to past activities. The test will be done by students in approximately 60 minutes with a minimum of 200 words.

Before using the instrument to collect data, the instrument used needs to be tested first to determine the level of Validity Test, Test Reality Test, Data Normality, Homogeneity Test (Similarity of Variance), after that a hypothesis test is carried out to answer the problem formulation by using measurements

through the t test. -test (Paired Sample T-Test) and Analysis of Covariance Test (ANCOVA). An instrument is said to be valid if it is able to measure what it wants to measure. Able to express that reveals what you want to express. (Riduwan and Sunarto, 2012:348). Revealing that revealing the aspects to be studied, a good and quality measuring instrument is needed. The measuring tool can be in the form of a scale or a test. A good test must have several criteria, including valid, reliable, standard, economical, and practical. A test is said to be valid if it does measure what it is supposed to measure, in almost the same language that validity is a measure of how accurately a test performs its measuring function.

ANCOVA is an analytical technique that is useful for increasing the precision of an experiment because it regulates the influence of other uncontrolled variables. ANCOVA is used if the independent variables include both quantitative and qualitative variables. In ANCOVA used the concept of ANOVA and regression analysis. In ancova we compare the dependent variable (Y) in terms of the independent variable (X1) while at the same time linking the dependent variable with other independent variables (X2). The X2 variable used to predict this is called the covariance.

The purpose of this ANCOVA is to find out or see the effect of treatment on a variable by controlling for other quantitative variables. In this study, the uncontrolled variable was the students' final writing ability before the study.

RESULTS AND DISCUSSIONS

The table score above is the score and writing skill. To calculate the score the researcher add every score in students result. The table below shows the students'result in pre-test nd post-test.

Result of Pre-test of Experimental group and Control group

Experimental Group	50	70	77	65	55	55	65	50	70	50	65	60	70	50	60	60	60	60	60	60	50	50	60	50	60	78	70	50
Control Group	50	50	50	50	50	55	60	50	50	50	55	50	65	55	60	55	50	50	50	70	50	65	55	50	55	50	50	55

Table 4.2 Result of Pre-test of experimental and control group

Result of Post test of Experimental group and Control group

Experimental Group	60	75	79	70	72	74	70	72	70	72	72	65	80	60	78	78	70	75	76	70	72	72	65	65	70	80	78	80
Contol Group	55	55	60	50	55	60	68	60	65	50	65	75	65	65	55	60	60	50	65	70	55	78	65	65	60	55	50	70

Treatment

In the first treatment, students listened to the researcher's explanation of the recount text material. the researcher gives an explanation of how to make good content, organization, vocabulary, grammar and mechanics in writing recount text. the researcher also explains the steps in a good writing writer. including prewriting, writing in the first drift, revising, editing and proofreading.

In the second treatment, the researcher explained to the students that the learning process used Digital storytelling. The researcher explains to students how to use Digital storytelling and its features. The researcher then instructs students to upload photos to Digital storytelling and write recount text as a caption related to the image. The researcher also explains the parts of the recount text, namely orientation, events, and reorientation. The researcher also provides feedback to students through the comments column.

Homogeneity of Variance test

The homogeneity of variance test is done to know are both data have equal mean scores. The result below shows the statistic using the Levene test.

Dependent Variable: Posttest

F	df1	df2	Sig.
1.264	1	54	.266

Table 4.6 Homogeneity of Variance Test

The Lavene statistic result if p > 0.05, equal variances can be assumed and from the result above shows that the result of sig value is over .266 it means scores passed the homogeneity of variance test.

Correlation test

This test is done to show the correlation between the data.

Pretest			Posttest
Pretest	Pearson Correlation	1	.594**
	Sig. (2-tailed)		.000
	N	56	56
Posttest	Pearson Correlation	.594**	1
	Sig. (2-tailed)	.000	
	N	56	56

Table 4.7 Correlation test of pretest and posttest

There are two way to indicate the correlation. First way is to look at the sig value. If the sig value is lower than 0.01 then there are no correlation between the data. The second way is to look at the Pearson correlate value. If the correlate vali is not higher than 0.8 then the data is not highly correlate. From the result above that the two ways are indicate that there are no correlation between the data.

ANCOVA Analyzing

After the assumption needed for the ANCOVA Analyzing is fulfilled from the test above. Now is the time for the researcher to do the ANCOVA analysis. See the table below for the analysis result.

Dependent Variable: Posttest

group	Mean	Std. Deviation	N
Experimental	72.1429	5.59573	28
control	60.9286	7.48791	28
Total	66.5357	8.65493	56

The image above shows the mean and standard deviation of the post-test. This result is not yet compared with the pretest. The result shows the result means the experimental group show better results than the control group. And the experimental group spread is more narrowed than the control group.

Source	Type III Sum of quares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2294.159[a]	2	1147.080	33.298	.000	.557
Intercept	1457.224	1	1457.224	42.302	.000	.444
Pre	533.516	1	533.516	15.487	.000	.226
group	838.933	1	838.933	24.353	.000	.315
Error	1825.769	53	34.448			
Total	252032.000	56				
Corrected Total	4119.929	55				

Table 4.9 Test of between subjects effects

The results above inform the difference between pretest and posttest. in the group row, the "sig" value gives a result of .000 which is lower 0.05 and it is the mean experimental group, and the control group shows significant results. For the detail about which way the significance is. Look at the table below.

Hypothesis Testing

The results of the study can be seen from the results of the pretest and posttest scores and are proven by calculating the value using SPSS. This shows that the use of Digital storytelling has a very good impact on being able to make text recounts. Almost all students use social media as a communication tool, both for stalking other people's status and telling their life stories to be published. This is very interesting for students to be able to tell what happens every time to be uploaded on social media, especially on Digital storytelling. they will tell each other and not infrequently they compete with each other to

get the attention of people who see their status. It is clear that the significance value is 0.000 which means that it is lower than alpha 0.05. It can be concluded that the use of DST is effective for recount text writing.

Discussion

After testing the assumptions of analysis with ANCOVA, the results showed that the average result of the experimental group was higher than the control group with different point values. The results of the lower limit of the experimental group and the results of the lower limit of the group showed differences. Not only the lower limit score, but the upper limit score in the control group also showed differences. For details on the difference between the two groups, see parawise comparisons. this can be seen in the experimental line x control group. And the most important value is "sig." value, "sign". the value in this table shows the lower than the level of significance. so this value indicates that the scores of the experimental group and the control group are significant. From the results above, the researcher can decide to accept Ha which states that there is a significant difference between students who are taught to write recount text using Digital storytelling compared to those who do not use Digital storytelling and reject Ho, the researcher says that there is no significant difference between students who are taught to write recount text using Digital storytelling. compared to those who do not use Digital storytelling. Sabiq (2020) Students are encouraged to make the most of Digital storytelling by including it as a learning medium in the English teaching and learning process. Students go through a variety of learning experiences. According to Transinata (2019), using photo-based media on Digital storytelling social media can improve their English writing skills and increase their motivation to use English.

In brief, the researcher can state based on the data above that the use of DST on students' writing skill in recount text have a significant effect to the students. The result shows significant in students' writing ability because there is progress between the students' writing results in doing the pretest and posttest. Previous students have been able to write a simple recount text

paragraph well, but they need a lot of practice in writing a recount text. Researchers use Digital storytelling media to stimulate students' creative mindset in writing and stringing words so that they become a good text.

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