ENGLISH DIGITAL COMIC FOR THE STUDENTS OF SENIOR HIGH SCHOOL IN BANTEN

Harsuni Winarti
Postgraduate Student of University of Sultan Ageng Tirtayasa
harsuniwinarti@yahoo.com

Yudi Juniardi
University of Sultan Ageng Tirtayasa
yjuniardi@yahoo.com

Masrupi
University of Sultan Ageng Tirtayasa
drmasrupi05@gmail.com

ABSTRACT

The research was designed to know the relevant design of digital comic media for Senior High School students, the relevant reading learning material of an Explanation text, the feasibility of the digital comic media as the reading learning material and the effectiveness of using digital comic-based reading material for Senior High School students. The digital comic was believed as a good media for transferring the material, since its interesting object and easily understand by all kind of learners. The research conducted by using R and D research and developed using ADDIE model which is using evaluation on its every stage. The last product of the digital comic is in the form of video Mp4.The digital comic was designed using free downloadable application *Cartoon Story Maker* and converted to the form of Mp4 using *ScreenCast O-Matic* application. The media expert validation result was 88.5 %, very good feasibility level and material expert validation result was 98.2%, very good feasibility level. The result of product trial on the small scale was 80.6% and the large scale was 81.3%.From the teachers point of view, the result was 92.5%.The result of Implementation to the 75 students indicated that the product was effective by showing the strong correlation about 0.609 and the significance result < α 0.05. It is proved from the series of validation, product trial and implementation that the digital comic gives beneficial contribution as reading material for Senior High School students in Indonesia especially in Banten Province.

Keywords: ADDIE model; digital comic; reading material.

INTRODUCTION

Information and Communication Technology (ICT) offers many application to help teachers and students share and learn information. Nowadays, teachers are not the center of the learning process, ICT becomes the students' assistance to know or to find knowledge. According

to Bull (2010, p. 28), “Students use smartphones and related handheld devices and tablets to coordinate schedules and face-to-face gatherings; share stories, images, and video; browse the Web; and participate in social networks.” So, they take advantages of using ICT to improve their skill and enlarge their knowledge. They are no longer depend on the source of the information from one side, they get and also crosscheck the information using technology. They use the devices to make their tasks easier and shorter, means those tasks can be done effectively in a short time.”

One of the multimedia which can be applied as reading material in the classroom is the digital comic. Digital comic involves motion audio and visual picture which will help students easily get the message. As stated on the research by Laurrilard (1998, p. 229)” Advances in the technological media now provide interactive access to large text and audio-visual databases, and make it possible for learners to conduct on-line searches through attractive information. This has brought a flood of new recruits to the rhetoric of `learner- oriented', `constructivist', `exploratory' learning. This is what these multimedia databases with their hypertext access appear to offer, so that is what is now proclaimed for the technology. “Digital comics also encourage students to work collaboratively, as digital comics are a powerful tool for online collaboration. This can subsequently improve students’ language skills. Educators teaching new vocabulary or grammatical structures might instruct students to create a comic strip, in which the characters use the words or constructions that have been learned in class” (Yunus, 2016, p. 34).

Comic has positive side to attract students’ attention and to make them interested to study more about the materials which is being explained. “Comics have reduced text, which attracts reluctant readers. They also have bright colors and popular characters that interest readers and keep their attention. Comics have visual appeal, less text, and some familiar characters that will draw students in. Looking beyond the initial appeal, comics can increase literacy and language acquisition.” (Baker, 2011, pp. 22-23). Many students who have lack interest on reading will begin to read comic, and they will improve their reading into harder reading materials.

Designing digital comic

Cartoon Story Maker (CSM) is a 2-dimensional cartoon based storyline to describe conversations and dialogs, stories can include unlimited number of frames and frame-by-frame viewing, features of this software include; character and library background, import your own

image, bubble text and information box, access panel buttons, import sound recordings, built recorder to add your own sound recordings, unlimited number of frames, copy and paste frames, preview, print function, stored stories can be opened and edited, copy and paste from other text documents.

An interview was conducted by Flora with the educational practitioner, Dr. Gumawang Jati, in 2014. He states that on increasing teachers using ICT in their language classrooms, he gives trainings and introduce them to practical free software for language learning such as *Hot-potatoes, Cartoon Story Maker*, etc. A good example is to apply offline activities for *Cartoon Story Maker (CSM)*. With *CSM* it is possible to make 2D screen-based cartoon stories to illustrate conversations and dialogues. Stories can include an unlimited number of frames and are viewed frame by frame. Each frame can include images, text bubbles, and voice recordings. Stories are then saved as HTML page (webpage) or printed. Completed stories can also be loaded back into the *CSM* and edited.

The development of Digital comic media was conducted through these following stages;First, install the free downloadable application, *Cartoon Story Maker* to design and create a digital comic, *UC-browser* to preview the result of compilation frame, *ScreenCast O-Matic* to convert the digital comic to the form of video (Mp4) and upload in Youtube. Second, prepare the Explanation text material from the printed book and from internet and the pretest-postest items. Third, prepare the picture for the background and foreground of the frame. Fourth, make a storyline based on frame and choose the background and foreground which match with the material. Next, put the storyline in the frame one by one and fill the text bubble and audio bubble as needed. Then, review all the frames using *UC Browser* and save. At last, convert the result of the digital Comic using *ScreenCast O Matic* application. The last result is in the form of video (Mp4).

RESEARCH METHODOLOGY

This research used Research and Development (R and D) method which develop the digital comic media in the form of video. The digital comic media used as the reading material for XI grade of Senior High School students especially on Explanation text. This research was conducted based on the Analyze-Design-Development-Implementation-Evaluation (ADDIE)

model which is clarified on the following steps; (1) Analyze, conducted need analysis which analyzed the student's need and students' characteristic, the product characteristic (2) Design, designed the target of the product, for the product was designed, what competency was learnt, how to deliver the material, and how to know the result (3) Development, collected the materials, installed the application and made the product (4) Implementation, through the small scale trial and large scale trial (5) Evaluation, conducted after every stage.

The result of the development product was implemented to the students in the learning process through small-trial to XI grade students SMAN 1 Kramatwatu, and large field-trial to XI grade students of nearby Senior High School in Serang Regency. The using of the digital comic was implemented in the classroom based on the lesson plan which contain steps of instruction.

Technique of the data analysis used descriptive qualitative analysis, descriptive quantitative analysis and inferensial statistis analysis. The descriptive qualitative analysis was used to analyze the comment, judgement and suggestion into groups and used them to revise the product of digital comic. The descriptive quantitative analysis used to analyze the result of the quistionaire into descriptive percentage using percentage calculation formula.

Inferensial statistis analysis is the analysis technique which was used to analyze the effectiveness of the product from the cognitive result before and after applied the development product. The data which consisted of the Pretest-Posttest scores were collected with the hipotesis there was a significance result of the students' cognitive result on explanation text material before and after using digital comic. The data was analyzed using *Pair sampled t-test* on SPSS 17 application.

RESULT AND DISCUSSION

The design of the digital comic was used the *Cartoon Story Maker Application, Paint Application* (set the background) and the result of *Cartoon Story Maker* in *UC Browser* was converted in the form of video by using *ScreenCast O-Matic.* First step of designing the project, the researcher made the slide design and then put the slide design in the Cartoon Story Maker application. The opening section of the video introduced the topic of the reading material, which was about *Explanation Text*. The next part shown the based competence and learning indicators.

Then the story was begun by introducing the characters and the important word which were going to use in the story. The main part of the digital comic was opened by the conversation of three characters when they got wet because of the rain. They talked about how was the rain come by discussing about the water cycle in the world. The video was supported by the background song which also played the cycle of the water. Then the step by step of the water cycle shown slide by slide. At the end part, the students' comprehension of the material was reflected through a smiley icon.

The result of the research on designing digital comic based as Explanation text reading material for Senior High School students identified the following analysis: (1) The result of media expert validation; 98.2 %. It means that the product from the teachers' point of view has very good feasibility level. The detail result of material expert validation is on the following:

Table 1. The Validation of the Media Expert

Indicator	Graphic Feasibility Aspect	Language Feasibility Aspect	Presentation Aspect
Percentage	97.1	98.3	99.3
Remark	Very Good Feasibility	Very Good Feasibility	Very Good Feasibility

(2) The validation result from the material expert is about 88.5 %. It means the product has a very good feasibility level. The detail material expert validation is on the following:

Table 2. The Validation of the Material Expert

Indicator	Content Feasibility Aspect	Presentation Aspect	Language Feasibility Aspect	Contextual Assessment Aspect
Percentage	85.7	88.3	85	95
Remark	Very Good Feasibility	Very Good Feasibility	Very Good Feasibility	Very Good Feasibility

(3) The feasibility result from students and teachers point of view on the small and large class trial show that the digital comic has very good feasibility level. The digital comic feasibility result on the small scale trial which consist of 25 students at SMAN 1 Kramatwatu reached 80.6

% and had very good feasibility level. The digital comic feasibility result on the large scale which consisted of 75 students of 3 schools in Serang Regency area shown 81.3 % and had very good feasibility level. The result of teachers' feasibility shown a very good feasibility level on 92.5 % and had very good feasibility level from the teachers' point of view. (4) The digital comic contributes significance students' cognitive score after applying the media in the classroom which is proved by the raising of students' average score on the pretest and post-test. By using SPSS 17 application, the data were considered as the normal data by comparing the value of *Kolmogorov Smirnov* count with the value of *Kolmogorov Smirnov* table, compared in this case is the absolute value, with the criteria; if the absolute value of K-S count is less than the value of K-S table then the data is normally distributed. If the absolute value of K-S count is more than the value of K-S table then the data is not normally distributed. The absolute count for the 75 number of data with the 0.05 significance result was 0.154. The absolute count for the Pretest was 0,149 < 0.154. It meant the Pretest data distribution was normal. The absolute count for Posttest data was 0.148 < 0.154. It meant the Posttest data distribution was normal. Because all the data are proved had the normal distribution, the parametric statistic for testing the hypothesis was applied.

The result of effectivity of the product proved that the cognitive result of students after using digital comic increased. It was proved by testing the hypothesis using T-Paired Sample test with the help of SPSS 17 application. The SPSS output result *Paired Samples Correlation* shown the correlation before and after using digital comic was 0.609 and had strong correlation and the significance =0.000 < α 0.05. It meant Ho Hypothesis was rejected because there was an increasing students' cognitive result. There was also the difference score on the pretest-posttest average *mean* -38.200 with the pretest *mean* was 46.27 and posttest *mean* was 84.47. The output of Paired Samples Test shown the T Count -47.885 with the significance 0.000 means Ho Hypothesis was rejected means there was an increasing students' cognitive result after using the digital comic.

CONCLUSION

Based on the R and D research, the using of digital comic as the reading material of Explanation text gives some positives contribution. From the substantial aspect, the digital comic

using during the learning process is in line with the 21st century learning activity as an interactive tools and interacting with others means the learning activities in the digital age are accessible. Students can access the learning resources inside and outside the classroom. From the usage, the digital comic gives new information to the students and helps students understands the material and increases students' cognitive result. From the ease to use, it is accessible and only takes small space on the mobile phone or PC at about 7 MB.

Digital comic as reading material of an Explanation text for Senior High School students helps to solve the students' problem in the learning process that is difficult to understand kind of Explanation text which use mostly scientific language (special term) and to get relevant material in accordance students' learning character especially in the 21st century age.

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