Development of Interactive Multimedia Digital Storytelling in English Subjects

Juanda
Educational Technology, Postgraduate Program
state University of Medan.
Medan, Indonesia
juanda.tpunimed@gmail.com

Abdul Muin Sibuea
Educational Technology, Postgraduate Program
state University of Medan.
Medan, Indonesia

R Mursid
Educational Technology, Postgraduate Program
state University of Medan.
Medan, Indonesia

Abstract— **This study aimed to determine the feasibility of digital interactive Digital Storytelling and to know the effectiveness of multimedia interactive Digital Storytelling on student English learning outcomes. Type of this research used development research from Borg and Galls product development model that combined with Dick and Carey learning development model. The stages of this study are divided in to stages of needs analysis. Digital Storytelling (design) learning media planning stage. Develop and test phase. The results of this study indicated (1) the test of English language material experts is very well qualified (87.50). (2) the learning media expert test is in very good qualification (81.07). (3) the learning design test is very good qualified (88). (4) individual trials are in very good qualifications (94.81). (5) small group tests are very good qualifications (96.09). (6) field trials are very good qualifications (98.57). The results of hypothesis testing prove that there are significant differences between student learning outcomes that do not use Interactive Multimedia Digital Storytelling with those using Interactive Multimedia Digital Storytelling. This is indicated by the results of processing data t count = 5.84. at the significance level = 0.05 t table = 2.75. It was concluded that Interactive Digital Multimedia Storytelling was developed to be feasible and effective to improve learning outcomes in English.**

Keywords— Results of Learning English, Interactive Multimedia Digital Storytelling

I. INTRODUCTION

Learning media is an integral component of the learning system. Learning media cannot be separated from the learning process. Without learning media, the learning process cannot occur. Learning media is an important part of the learning system, so the use of instructional media influences student learning outcomes. Learning media is a means to convey material to someone to learn, with an interesting media, students will more easily receive subject matter [1].

However, in the modern era the media has been developed to facilitate learning with multimedia which the nature of learning will turn into active classes. Correspondingly, multimedia is an effective tool in the teaching and learning process. An ordinary class will turn into an interactive class, where students can explore, gain knowledge, even take exams in a pleasant atmosphere. Learning media, according to Kemp (1985) can fulfill three main functions if the media is used for individuals, groups, large listening groups, namely: (1) motivating interests or actions, (2) presenting information, and (3) giving instructions.

[2] defines interactive multimedia as a learning program that includes various integrated sources of various elements of media in a computer program. The program is deliberately designed in parts and structured to provide opportunities for interactivity between developers and users in a flexible manner, so that the learning process occurs. Interactive multimedia applications in learning in general can be grouped by function, namely (a) to train skills (skill builders), (b) to explore knowledge (knowledge explorer), and (c) to enrich the learning process (reference works)

In the 21st century the development of technological tools in learning media is increasingly meeting us. One of the learning media used is digital interactive digital storytelling. [3] said that digital interactive digital storytelling is a computer-based technology that is used to convey a story to listeners in the form of text, animation, graphics, audio and video. Interactive digital storytelling multimedia allows us to be able to develop lessons in the form of stories that are packaged into digital form. This is in line with the 2013 curriculum which uses a thematic approach to stimulate student activity. Besides the use of digital storytelling can also make learning more interesting and can increase students' curiosity with the support of animation, music, pictures, and sounds.

Storytelling in general is a strong pedagogical approach and can be used to improve learning outcomes in education which include scientific and technical studies in learning [4]. At first storytelling was used by the teacher in the learning process with the help of media books or puppets. Storytelling is done by telling a story with an educational content, for example the

fairy tale. The use of storytelling visual aids allows students to live the story through the visualization provided. Storytelling is now transformed into digital multimedia storytelling which not only relies on oral stories but is combined with music, animation, interactivity and narration simultaneously. So that brings a different atmosphere to students. Making digital storytelling multimedia is quite easy because many applications that we use include Adobe Flash and many more according to user needs.

[5] states that integrating digital storytelling into the curriculum in language learning is a creative language learning technique that can increase the level of student learning in reading, writing, speaking, and listening..

II. METHOD

This research was carried out in the senior high school in Sukma Bangsa Lhokseumawe, Class X Semester II. 2018/2019. The time of this study began in January to February 2019. The treatment was carried out during 5 meetings with an allocation of time of 2 x 40 minutes at each meeting. The learning process is done in class.

To achieve the objectives of this study, researchers produced interactive multimedia learning products storytelling on narrative text material in senior high schools with Adobe Flash CS6. Research as a whole uses research with the Research and Development (R&D) method [6].

The development model according to Borg & Gall which consists of ten steps (stages). The ten steps can be seen in the following image:

Gambar 3.1 : Langkah-langkah Pengembangan Research and Development (R&D) menurut Borg and Gall

III. RESULTS

A. Product Feasibility Test Results

Based on the results of the validation carried out by the interactive digital storytelling multimedia product, it was declared feasible to be continued in the field trials. Digital storytelling interactive multimedia developed has met the standards based on the design of learning media development standards and this learning material standards can be seen in the table.

Table. Summary of Product feasibility results based on material experts, design experts, instructional media experts.

Validation Expert	Percentage Results	Eligible / Not feasible
Learning material expert	87,5%	eligible
Learning media expert	81,07%	eligble
Learning design expert	88%	eligble

The results of the questionnaire submitted to the learning material experts gave 87.5% responses that interactive digital multimedia storytelling was appropriate to use because it contained material and delivery criteria that met the requirements for delivering messages to students. Media experts gave 81.07% responses that interactive digital storytelling was feasible to use because it had fulfilled the principles and criteria for developing instructional media. Meanwhile, instructional design experts gave 88% responses that interactive digital storytelling multimedia is appropriate to use because it has been designed in such a way and meets learning design standards. By looking at the guidelines and assessment criteria according to [7], it can be concluded that the above data proves that the use of multimedia digital storytelling is very feasible for students to use in English subjects.

B. Research Results of Product Effectiveness Test

From the results of data processing research conducted there are average English learning outcomes after using interactive digital multimedia storytelling in class X students senior high school of Sukma Bangsa Lhokhseumawe, amounting to 29.13. While learning outcomes in English before using interactive multimedia digital storytelling 26.91. From this data proves that interactive digital storytelling multimedia is feasible and effective in increasing student competence, this is in line with [8] which states that DST has a beneficial effect on reading skills by students being able to associate meaning and emotions with words. Students also develop vocabulary and learn when and where to use certain words and phrases. [9] DST gives a significant value to learning English as well as students' interest and learning tastes and is well used in teaching English.

The same thing was also said storytelling can also help students in learning English become more confident to express themselves spontaneously and creatively. Thus, digital multimedia storytelling that has been produced is feasible and effective for use in learning. This is in line with the results of Wood's research (2001: 15) which states that the advantages of using interactive multimedia in learning are as expressed by the use of multimedia learning has the potential to enhance learning.

IV. FINDING

Based on the results and research discussion of the development of interactive digital multimedia storytelling conducted, it can be concluded as follows:

Interactive multimedia digital storytelling with narrative text material is feasible to use with expert presentation validation 87.50% included in the category of "very good", validation of media experts 81.07% included in the category of "very good", validation of learning design experts 88% included in the "very good" category. Individual trials received a 94.81% presentation. included in the "very good" category, the results of the small group trials received a 96.09% presentation included in the "very good" category and the results of the field trials obtained a percentage of 98.57% included in the "very good" category.

English learning outcomes of students taught by using digital storytelling learning media are higher than English learning outcomes of students taught without digital storytelling learning media that are tested through a statistical test t with the test results showing a tcount of 5.84> 2.75. Based on the results of this study also obtained data on average value of students who were taught using digital storytelling learning media higher, namely 29.13 compared to the average value of students who were taught without digital storytelling learning media, amounting to 26.91

REFERENCES

[1] Haryanto.(2012).belajarpsikologi.com/pengertian-media-pembelajaran/diakses pada tanggal 9 oktober 2018 pukul 14.47

[2] Hackbart .(1996). The Educational Technology Handbook. A comprenhensive guide. Process and products for learning. New Jersey : Educational Technology Publications.

[3] Kemp.(1985).Planing And Producing Instructional Media. Cambridge: harper&Row Publisher,New York

[4] Mokhtar, N. H., Halim, M. F. A., & Kamarulzaman, S. Z. S. (2011). The Effectiveness of Storytelling in Enhancing Communicative Skills. Procedia - Social and Behavioral Sciences, 18, 163–169. doi:10.1016/j.sbspro.2011.05.024

[5] Colon &vila, (1997). Announcements. Diseases of the Colon & Rectum, 40(7), 878. doi:10.1007/bf02055453

[6] Sawyer & Sindelar.(2011).Digital Storytelling.United States of America.

[7] Sharda.(2007). Decision support sistem and intelegent sistem. Yogyakarta

[8] Tsou .(2006). Discovery of a synthetic dual inhibitor of HIV andHCV infection based on a tetrabutoxy-calixarene scaffold, Bioorg.. Lett., 20, 2137-2139.

[9] Wenli T.(2004). Improving Speaking Skills Through Instruction in Oral Classroom Participation.www. brandies.edu/ department /roms/ strategies-speakingskill.