



The Development of Digital Storytelling Website Based Media for Economic Learning in Senior High School

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Abstract

This study aims to investigate the feasibility of digital storytelling website based media in an effort to improve student economic learning outcomes in Senior High School. The research and development of this web-based digital storytelling media was used the modified Borg & Gall procedure of study. There are three stages of research, namely the introduction, development and hypothesis tested. The target of the research was Senior High School in East Tanjung Jabung, Jambi Province. Data analysis in the development process using descriptive analysis, media feasibility analysis with scale scores and using test analysis of student learning outcomes. the research of the digital storytelling website based media had been developed successfully to improve the learning outcomes of the 10th Social Sciences Class of Senior High School.

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INTRODUCTION

The 21st century is an era marked with development science knowledge and technology. The era of development science knowledge and technology is the right momentum for bridging improvement human resources (HR) quality. This Effort enhancement human resources quality need supported by various aspect in life, one of which is education. Essentially, education is the most strong potential in enhancement the quality of human resources (Dirgatama, Siswandari, Indrawati 2017; Marjan & Arnyana Setiawan, 2014) . In practice, education very related tightly with delivery science knowledge and values life. Based on it, we can conclude that education is the most effective way in effort enhancement the quality of human resources in Indonesia based on science knowledge and technology.

Sani (2013: 46-48) reveals that effective learning activities must meet certain aspects, including more student-centered learning activities, the existence of educational interaction between teachers and students, variations of teaching methods, appropriate and useful materials, a conducive environment and media learning that support. Sani added that the non-fulfillment of these aspects can have an impact on the low student learning outcomes. An indicator of whether or not a learning process is achieved by looking at the learning outcomes achieved by the students. Learning outcomes are a reflection of the level of success or achievement of the objectives of the learning process that has been implemented which at the end ended with an evaluation. Learning outcomes are defined as the final result of decision making about the high of the students 'value during the learning process, the learning is said to be successful if the level of students' knowledge increases from the previous result (Djamarah, 2000: 25). Education in Indonesia is explained in Law No. 20 Year 2003 Article point 1 concerning 1 System Education National which states that education is business conscious and planned for realize atmosphere learn and learning process for learners in a way active develop potency him for have spiritual, religious , controlling power self , personality , intelligence , morals noble , and skills necessary forhimself , society , nation and country .

In order to realize the learning atmosphere and effective learning process and learning atmosphere that supports students to develop their own potential, the role of the school as an institution specially designed to be the place of the learning process of a number of subjects in accordance with the established curriculum should give a good learning and interesting in the process so as to stimulate students to be able to think critically and intelligently in facing the phenomenon so that in accordance with the goals of national education in the constitution of the state of the republic of Indonesia. In order to achieve the national education objectives in the constitution of the Republic of Indonesia, a curriculum that is complied with the national education objectives namely the Curriculum 2013.

Curriculum 2013 is a curriculum that is currently being applied to schools in Indonesia. Vice Minister of Culture Education of the Republic of Indonesia on January 14, 2014 explained that one of the reasons for the development and implementation of the 2013 curriculum is to answer the challenges of the future, one of which is the advancement of technology and information. Directorate General of Primary and Secondary Education, The Ministry of Education and Culture said there are 3 basic things that become the focus of the implementation of the curriculum of 2013, namely (1) Strengthening Character Education, (2) Strengthening Literacy, (3) Learning of the 21st Century. Strengthening character education including creative and independent, students are required to be creative and independent in their daily life as well as in the learning process. The strengthening of the literacy in question is the overall strengthening, not only from reading alone, but also the strengthening of thinking ability using knowledge resources from print, visual, digital and auditory media. The third point of the focus of the implementation of the 2013 curriculum is 21st century learning, Assessment and Teaching of 21st Century Skills (ATC21S) categorizes 21st century skills into 4 categories: way of thinking, way of working, tools for working and skills for living in the world (Griffin, McGaw & Care, 2012). Students are focused on information literacy, mastery of new information and communication

technologies, as well as the ability to learn and work through digital social networks.

One form of media that can be used in various types of student data using multimedia, variously proposed by Newby, Stepich, Lehman, and Russell (2000: 102) that "multimedia is a combination of various types of media", can i that multimedia is a combination and a combination of several types of media presented into a medium that can meet the needs of students in accordance with their respective characteristics. A research done by Ming, Sim , Mahmud, Kee , Zabidi and Ismail (2014: 490) who developed digital storytelling with integrate technology and interactive media, ie media that have digital audioelements , videos, movies, books digital comic and proven multimedia images effective could improve various skills and experience required in the 21st century era covers communication interactive, interpersonal skills , responsibility answer personal and social , literacy technology , and develop a sense of want know , creativity and brave take risk . Yang and Wu (2011) in his research entitled Digital Storytelling for Enhancing Student Academic Achievement, Critical Thinking, and Learning Motivation: A Year-Long Experimental Study with the results of research that the use of digital storytelling can improve students' understanding of the content of the lesson, and critical thinking skills which is one of the important factors in preparing students in the 21st century.

Today's technology tools are considered as vital educational tools that can facilitate co-construction of knowledge among students in learning (Ayas, 2006; Hew & Brush, 2007; Sul Ci C & Lesjak, 2009). In the world of education, the internet has often been used as a medium of learning and learning resources. Many learning materials that we can access on websites or often known as websites, websites are interactive media that can respond to users. In the questionnaire of student needs analysis, 65% of students stated that students often access the internet. In interviews with students, students say students sometimes access the internet and use it to add learning materials that students do not get in the source book, students also access the internet to open social networks such as instagram, facebook, and

the like. The results of this study prove that in fact students have literacy technology and information, the situation can be used by teachers to utilize human resources and facilities that have been provided by schools to maximize the learning process. The supporters multimedia learning which mediated and innovative confirmed that tutorial based on website propose the chance for improving the students involvement and retention of material (Cheng and Swanson, 2011; Cheng, 2010; Sandman, 2009)

METHOD

This study aims to investigate the feasibility of digital storytelling website based media in an effort to improve student economic learning outcomes in Senior High School. Methods of research and development can be defined as the scientific method for researching, designing, producing and testing the validity of a product that has been produced while Borg & Gall (2003) defines research and development in education based on the model of research and development in industry, where research results are used to design new products and procedures, and further tested the field systematically evaluated and improved to meet the criteria specific i.e. the effectiveness, quality, and meet the standards of. This research activity is research and development in the learning field of education media to improve and enhance the quality of economic learning outcomes. The target of the research was Senior High School in East Tanjung Jabung, Jambi Province.

The purpose of this research and development is to develop the digital storytelling website based media. Data collection techniques used in this study, includes questionnaires/question form, observation, interviews and validation team of experts (the expert judgment). Observations and interviews were conducted to obtain information directly on the economic learning process in Senior High School. Needs analysis used to perform the needs of teachers and students as the basic for consideration in developing the required learning media in the school. Sheet validation is used to assess the feasibility of the media that have been developed by media experts, expert content, linguists, and practitioners, i.e. economic teacher at

the school. A range of advice and input from a team of experts (the expert judgment) will be used as the basic in fixing the media products produced by acquire the digital storytelling website based media. Technique of data analysis used a descriptive qualitative analysis i.e. for observation and interviews, quantitative and descriptive question form and validation to the media by team of experts. Data analysis in the development process using descriptive analysis and media feasibility analysis using scale scores.

RESULTS AND DISCUSSIONS

In the early stages of the study, researchers conducted a preliminary study involving early literacy studies at the school. A study of objectives to examine theories relating to instructional media and its role in the subjects of economic lessons, i.e learning done in schools to learn the information needed to assess existing schools, especially on economic subjects.

This research and development is done in Senior High School in East Tanjung Jabung, Jambi Province. Senior High School in East Tanjung Jabung, Jambi Province is a school that has implemented Curriculum 2013. The object of this study is the students of social science class in the year of Lesson 2017/2018. At curriculum 2013, teachers play an important role as mediators and facilitators. Teachers are expected to be more creative in transferring knowledge to their students through creative and interactive learning media.

Preliminary study result

Data collection techniques at the preliminary study stage of observation, interview, curriculum analysis and teacher and student questionnaires to analyze. Based on the initial form, the National Examination test results for economic subjects of students of Senior High School in East Tanjung Jabung, Jambi Province are below the national exam score of 55.00 (Puspendik Kemdikbud,

2017). Data was supported by interviews with one of the economic subjects teachers at Senior High School in East Tanjung Jabung, Jambi Province on May 16, 2017, the teacher said that the students' economic subjects score is relatively low. The results of further interviews conducted by economics subject teachers found several problems encountered in the economic process; 1) Some students look active, 2) Students are often unfocused and busy themselves while learning takes place. 3) The value of learning result of economic subjects of students is still low. 4) Teachers only use existing facilities 5) Teachers lack the skills to make media based on learning technology, provide facilities that have been provided, methods used when subjects are ongoing is still teacher-centered or known by centralized teacher approach.

The use of technology in the learning process has also been done in some materials, as well as understanding the human needs and issues underlying the economy. Teachers use projectors to display powerpoints that have been loaded with text-based content and simple images. But for other materials have not used media-based technology in the learning process. The school itself has provided the means and infrastructure to help teachers implement appropriate learning methods for that purpose. teachers can apply technology-based learning media in learning as well as computer labs and projectors available in the classroom, as well as internet connections, although only limited to certain areas.

Another information obtained by researchers through questionnaires given to students and teachers to analyze the necessary needs in economic learning in school. Questionnaire needs of students are given to students of social sciences class in Senior High School in East Tanjung Jabung. The result of questionnaire of students and teacher requirement analysis can be seen in figure 1 as follows.

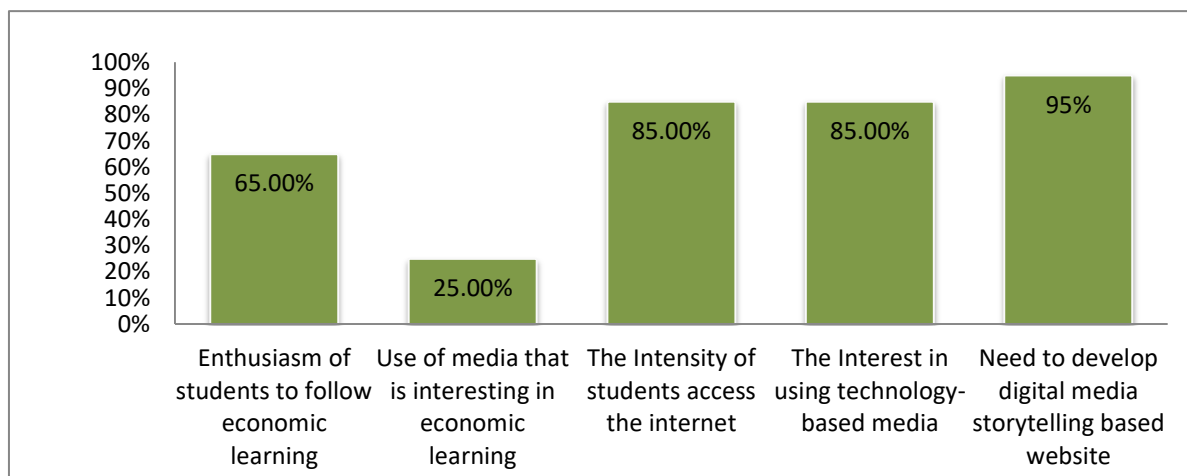


Figure 1. The data needs of students

Based on the data it is known that 95% of students agree if developed a creative learning media by utilizing the development of technology and comics as a medium in presenting lesson

information. The result of questionnaire of instructional media requirement for teacher can be seen in figure 2 below.

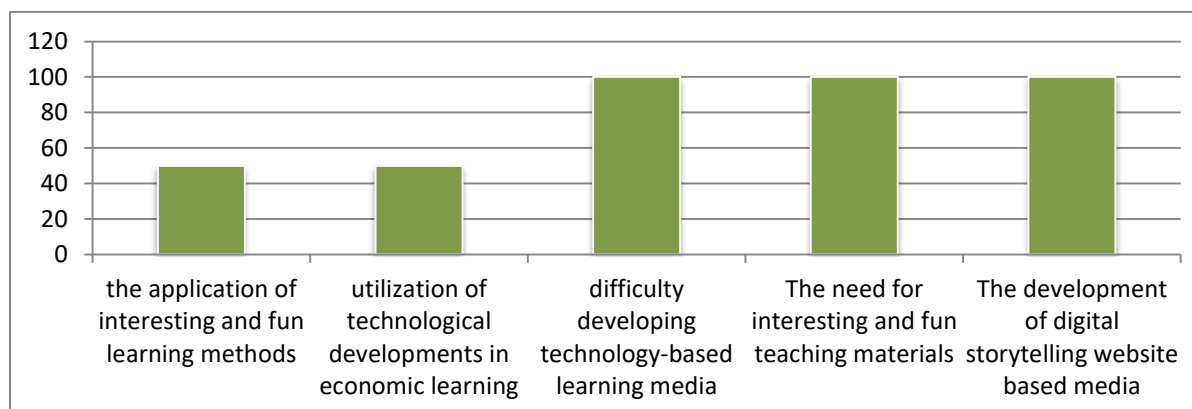


Figure 2. The data needs of teachers

Based on the data needs of learning media, it is known that the development of learning media of digital storytelling based on website is needed in economic learning process in school. The use of learning media can provide benefits in creating a more interesting and fun learning atmosphere. This condition that can motivate students in studying economics and expected with the use of learning media can contribute positively in improving student learning outcomes. Therefore, in this research will be developed learning media digital storytelling based website that is expected to improve students' economic learning outcomes in SMA Negeri 5 Tanjung Jabung East.

Developing Product

Preliminary results of preliminary studies have become one of the guidelines in the drafting and development of product-based digital storytelling digital media products. In preparing the initial product draft of instructional media, the things that need to be done is to determine the standard of competence and prepare the implementation plan of learning that will be done on the learning process.

Creating and Designing a website

Digital media storytelling based website can be accessed via <http://diniayulest.github.io/media>. Digital media storytelling based on this website consists of 3 Tabs. The first is the home tab that

contains the title and content of the material, the second tab is about tabs containing information about the digital media storytelling based on the website and the third tab is a test tab that contains the question of student evaluation in the form of multiple and multiple choices and essays that are connected to google form.



Figure 3. The title and content of the material tab.

Expert Validation

Validation of the experts is to test the feasibility of a product which was developed before the product is used for tested. The result of the expert validation is the basis to make improvements in the media are developed. The validation of this product will be done by media experts, expert content, linguist and expert practitioners.

Table 1. Validation of Media Expert

No	Aspect	$\sum n_i$	$\sum N$	%	Score	Criteria
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1	Material	37	45	100%	82,2	Excellent
2	Design	41	50	100%	82%	Excellent
3	Programming	25	30	100%	83,3	Excellent
Total Score		103	125	100%	82,5	Excellent

Source: Data processing results in 2017

Based on table 1, validation of media expert covering material aspect, design aspect and programming aspect got percentage of 82.22% and in the category of excellent.

Table 2. Validation of Material Expert

No	Aspect	$\sum n_i$	$\sum N$	%	Score	Criteria
1	Material	4	50	100%	82%	Excellent
2	Learning	4	50	100%	82%	Excellent
Total Score		8	100	100%	82%	Excellent

Source: Data processing results in 2017

Based on table 2, validation of material covering material aspect and learning aspect got percentage of 82.22% and in the category of excellent.

Table 3. Validation of Language Expert

No	Aspect	$\sum n_i$	$\sum N$	%	Nilai	Criteria
1	Straightforward	12	15	100%	80%	Excellent
2	Communicative	23	25	100%	92%	Excellent
3	Suitability of student development	8	10	100%	80%	Excellent
4	Use of the term	9	10	100%	90%	Excellent
Total Score		52	60	100%	85,50%	Excellent

Source: Data processing results in 2017

Based on table 3 it is known that in the aspect of language, covering the aspects of straightforward, communicative, conformity with

the development of learners, communicative and the use of the term obtained a percentage of 85.50%.

Table 4. Validation of Practition

No	Aspect	$\sum n_i$	$\sum N$	%	Score	Criteria
1	Material	31	40	100%	77,50%	Good
2	Presentment	28	35	100%	80%	Excellent
3	Learning	21	25	100%	84%	Excellent
Total Score		236	300	100%	80,50%	Excellent

Source: Data processing results in 2017

Based on table 4 it is known that the result of feasibility assessment was done by one of practitioners, covering material aspect, presentment

and learning aspect got percentage of 80,50% with an excellent criteria and feasible to use in the stages of trial with some revision.

Table 5. The results of questionnaires of students assessment in product trial.

No	Aspek	$\sum n_i$	$\sum N$	%	Nilai	Kriteria	Keterangan
1	Media	433	480	100%	90,21%	Sangat Baik	Layak Tanpa Revisi
2	Efektivitas Media	325	360	100%	90,28%	Sangat Baik	Layak Tanpa Revisi
Skor Total		758	840	100%	90,24%	Sangat Baik	Layak Tanpa Revisi

Source: Data processing results in 2017

Based on table 5 it is known that the result of students assessment product trial in small group trial covering media aspect and media effectivity got percentage of 90,24% with an excellent criteria which mean the digital storytelling website based media is feasible tu use in economic learning process.

CONCLUSION

Digital storytelling website based media has been declared feasible to be used according to media expert of 82,52% with an excellent criteria, material expert equal to 82% with a good criteria, linguist equal to 85,50% with an excellent criteria and practitioners of 77.50% with a good criteria. Based on the assessment conducted by the expert team can be concluded that the digital storytelling website based media that developed has met the media feasibility criteria so that it can be used in economic learning process. This is supported by data on limited trial results showing positive response from students using digital storytelling based on website, which is 90.24% with an excellent criteria.

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