

Digital Media Based on Macromedia Flash to Increase the Historical Learning Interest of Senior High School Students

Agi Ma'ruf Wijaya
Post Graduate Students

Nunuk Suryani
Professor

Sudianto
Lecturer
The Cultural Science Education
Sebelas Maret University

Abstract

The utilization of digital media based on Macromedia flash in historical learning is important to apply in increasing the interest and achievement of high school students. Based on the results of research that has been done, it is still quite minimal in the utilization of instructional media, especially on historical subjects. Based on this, it is necessary to develop a learning media that can increase the interest and achievement of high school students in learning history. The method used is a quasi-experiment with one controlled class and one experimental class. Samples taken are the students of class XI in SMA Negeri 1 Tanggul, Kabupaten Jember. This study examined the interest effectiveness in learning, with the following results; The post-test average of the experimental class was 102.55 and the mean of the control class post-test was 98.96, whereas the T-test obtained the value of 4,008 with the significance level of $0,000 < 0.025$. Based on the result of the statistical test of learning achievement efficacy, the mean of post-test of experiment class is 72,75 and post test of control class equal to 68,16. As for the T test obtained value of 2.324 with a significance level of 0.024 smaller than 0.005 ($0.024 < 0.025$).

Keywords: digital media, interest in learning, learning achievement

Introduction

Learning is a process of mutual influence between educators and learners in the learning process. The learning process is said to succeed if most learners are involved actively, whether physical, mental or social in the learning process. Learning which is defined by Gagne (1985), learning is a change that occurs in human ability after learning continuously, not only due to the growth process. Especially in the era of the world is now enriched with many technologies that have entered various lines of life including in the world of education. The success or decline of learning can be seen from the quality of education that is produced. The less quality of education, especially in the learning process, can be improved by improving the knowledge of educators about how to design learning methods that are more effective and have appeal. Based on the observations made, a historical educator in one of the states Senior High School is still using conventional learning with lecture methods in teaching students. The implementation of lecture methods by educators in learning resulted in students still lack the interest and attention to historical learning so that students tend to be passive and lack the passion in following the lesson. The usage of instructional media is also still considered less or minimal. The impact of students' learning interest on the historical subjects is low. It can be known based on the observation of the students during the class where students feel bored and saturated. Learning activities shown by learners did not occur if educators can use variations of learning methods. Almost all schools at the high school level have means of learning infrastructure tools both computers and projectors so that it can be used as a supporter educator in historical learning. It is expected that by applying the learning media can foster interest in learning and at the same time it can have an impact on the learning achievement of improved learners.

The purpose of this is to increase the interest of learners in the learning process, educators are required to make learning in the classroom more innovative so as to encourage learners to learn optimally, both self-learning and learning with props or other media. Technologies that can grow rapidly provide benefits, especially in the use of computer technology in learning so as to provide new learning innovations. The development of rapid technology also affects the world of education, in which there is a communication process the education world. The communication can be delivered in various ways by using media which is used to convey messages or materials in the learning process. The benefits of technological development are not only perceived by education but rather to anticipate changes in the future learning system (Pathmantara 2014: 245). Learning media has an important role in the learning process. The importance of instructional media usage as a learning resource can help educators convey material to learners so that the learners' knowledge will increase. The learning media used by educators can be a knowledge source for learners with the purpose of using the media by educators is used to generate interest and learning achievement of learners. The selection of appropriate learning media can help educators convey messages to learners so that the goals which want to be achieved can be implemented. Based on the opinions stated by Umam (2013, 100-105), where the lack of learning media usage as one source of learning in addition to the instruction manual used by teachers resulted in less motivated students to receive lessons. It is because students feel bored with the learning model that is still quite conventional.

Based on the above explanation, it can be concluded if the learning media has an important role as one component of learning. The functions of media according to Kemp and Dayton (in Arsyad, 1985,28) have three main functions: as an instructor, be able to present information, and motivate interests and actions. Based on that, media is a mean for educators to achieve learning objectives. This is because in the media contained information which is obtained from various sources. This is also reinforced by Smaldino's opinion (2002: 2) which states that the process of delivering learning materials to learners is strongly influenced by the method of learning media, and equipment required for students to learn. Educators in the learning process can use instructional media to be applied as part of the variation in the classroom learning model. The selection of appropriate learning media by educators can run well if the educator is able to know the value, function, how to use, and benefits that can be obtained from the media. The usage of multimedia will be very beneficial in expediting the learning process Anitah (2009,93). Based on that, it is expected that learning media can help to achieve the desired goal in the learning process. One of the ways to attract students' interest in learning is through the usage of digital learning media. The usage of this media used the system in the computer with Macromedia Flash program. The usage of Macromedia Flash program is expected to increase the activity of learning in class, so it can increase the interest and learning achievement of learners. In addition, other purposes of the Macromedia Flash program usage can provide new variations in learning methods so that learners are not saturated with the presented view and able to answer questions that have been prepared correctly. Based on the description above, the researcher considers that it is necessary to develop instructional media that can help educators in conveying learning materials with the aim to foster interest in learning as well as to improve learning achievement of learners.

The Research Method

This research used the quasi-experiment method, which in its implementation has a purpose of testing digital media in increasing interest and achievement of historical learning of high school student in Jember. This research adopted education development design according to (Borg & Gall 1989,624) educational research and development is a process used to develop and validate the educational product, which is a process used to develop and validate the product. This research object is high school students in Jember. This research took four classes to be selected with two classes as controlled class and experimental class by using class random technique after testing the equivalence level of each class. The subject of this research is high school students of Class XI in one of the high schools in Jember Regency. The number of students used in the experimental class was 30 students. In this study, there was a difference treatment between the experimental group and the controlled group. In the experimental group was subjected to the learning design by using digital media of historical learning, while the controlled group was subjected to the design of learning with conventional learning. Based on this research plan, there are 3 stages in this study which will be implemented to be able to answer thoroughly the previous problems are 1) The stage of the experiment, 2) The stage of experiment implementation, 3) The final stage of the experiment. This research will be developed into learning device that is Learning Device Plan (RPP) and digital media. The data needed in this study is the average value of student interest and achievement. The value of student's learning interest and achievement was measured using the test method.

The instruments used to obtain data on learning interest in were based on tests to the affective skills while the students' learning achievement were developed in accordance with the level of cognitive ability. The form of cognitive tests used was Multiple Choice Item Test with one correct answer score 1 and one false answer score 0.

Rresult and Ddiscussion

1. The Historical Learning Interest of High School Students

The word interest is etymologically derived from the English "interest" which means joy, attention, desire. So in the learning process, students should have an interest or joy to follow the learning activities that take place, because the interest will encourage students to show attention, activities, and participation in following the learning. According to Winkel (1984: 30), interest is a sedentary tendency in the subject to feel interested in a particular field or thing and feel happy to be involved in that field. Interest is a sense of preference and a sense of interest in something or activity, without any telling (Slameto, 2003: 180). From the opinion, we can understand that interest is very influential in person; the learning process of an interest begins with a feeling of joy on certain subjects and one of the internal factors which are very important in helping the achievement of learning objectives. Feelings of pleasure in the learning process will generate the learning interest so that it is potential to achieve high learning success. On the contrary, unhappy feelings hamper the learning because it does not give birth to a positive attitude and does not support the interest in learning. Sudarsono (2003: 28) explains that interest is an attitude of interest or fully involved with an activity because it realizes the importance or value of the activity. By having high learning interest, learners will feel that learning is a fun activity and a need so that the learning process will be easier. The learning interest has a great influence on learning outcomes because, with an interest, students are motivated to actively engage and do the best during the learning process. According to Hurlock in Wahid (2004: 57) the interest for students serves to (1) influence the intensity and ideals (2) as a powerful driver (3) results/achievements are always influenced by the type and intensity (4) Interest formed since childhood is often carried away for life because an interest brings satisfaction.

Another explanation stated by Shah (2003: 151) in his Educational Psychology that expressed interest means a high tendency and excitement or a great desire for something. If someone has a great desire for a thing then anything will be done. According to Luwzee (2008) interest in learning is "the process of occurrence is preceded by the feeling of pleasure and attention to an object so that there is a tendency to do something about the object". Interest in learning itself is divided into two, namely: A. Gifted interest, interest arises by not being influenced by other factors, both needs, and the environment. This kind of interest usually appears based on the exist talent. B. The interest that arises because of the influence from outside, then someone's interest may change due to the influence of the outside, such as environment, parents or even teachers. Based on the description of the interest type in this research, interest to be enhanced in the students is a second interest that is designed by using influence from outside. If the interest can be improved then the learning process will run well and smoothly. In the learning process interest can be improved in various ways, for example by completing the learning facilities, the use of media as well as new learning methods and advice or encouragement that can arouse students' interest. According to Slameto (2003: 58) students who are interested in learning have the following characteristics: (1) Have a fixed tendency to pay attention and remember something that learned continuously. (2) There is a sense of love and pleasure in something of interest. (3) Gain a pride and satisfaction on something of interest. (4) There is a sense of attachment to th interest activities. (5) Prefers a thing of interest to others. (6) Be manifested through participation in activities.

From the description, if the students' learning interest in the learning process can be improved then student achievement can increase. For that reason, educators can perform various ways to increase student learning interest, especially in historical learning. based on observations made by researchers found that interest in historical learning of students at SMAN 1 BMD is very low. This is because the lack of creativity of teachers in managing the learning process so that history subjects are considered limited to the past without meaning and value. Therefore, there needs to be a paradigm shift in teachers in designing learning history in order to increase student learning interest. Teachers must follow the development of the era that is by utilizing digital media so that student learning interest in the learning process of history can increase. Increased interest of students in learning history can be seen from the participation and activeness of students in the learning process. As indicated by the clarity (2002: 132) the Indicators of learning interest in learning process that there is a sense of love / pleasure, a statement more like, the sense of interest in awareness to learn without command, participate in learning activities, give attention.

It is in line with the opinion Slameto (2010: 180) Which suggests that the indicators of learning have a lot of fun, interest, acceptance, and student involvement. Students interest in history learning has a function as a force that encourages learners to understand historical events and values. Learners who have an interest in the lesson will be encouraged to study diligently. This is different from the students who only accept the attitude of the lesson. They just moved to learn but difficult to persevere because there is no pusher. With the effort to increase students' interest through digital media based on macromedia flash it is expected that the learning activity of history will take place well, besides that students will be encouraged to continue to learn and get achievement according to the expectation.

2. Macromedia Flash-based Digital Media

In line with the development of technology has begun to be developed multimedia-based learning system. Media digital learning in this case can present learning contextually, audio, and visual in an interesting and interactive (Umam 2013: 101). Interactive media is a combination of various media from computers, Audio, images and text. Learning by using multimedia according to Hitch (1974: 47-89) makes it easier for a person to remember and learn something through sight seeing and listening with the ear which is the basic working system of memory, in which case the student is not overloaded by the multi-instructions, it receives and greatly helps the brain work in terms of memory management. Based on Hofstener (2001,2) interactive multimedia is computers using to combine text, graphics, audio, moving images (video and animation) into a single unit with links and the right tools that enable multimedia users to navigate, interact, And communicate. Another point put forward by Berk (2011.24-35), a learning tools will be meaningless if it is not supported by the interface design and the interactivity design itself. In the learning process using tools aims to help teachers in presenting information and create learning experiences for students. Utilization of such technology is designed and created to assist the delivery of information to students who may not be delivered directly by the teacher. Therefore, the utilization of technology in the learning process is needed as a medium of learning to obtain learning outcomes that have been determined.

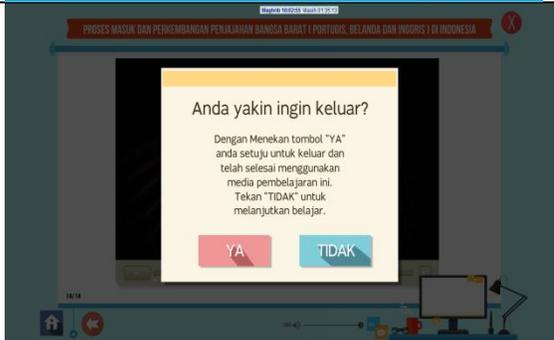
In the opinion of Martin and Briggs (1986), learning media is all the necessary resources to communicate with learners. In general, learning media is a tool for teaching and learning process. Everything that can be used to stimulate students' thoughts, feelings, concerns and abilities or skills, so to encourage the learning process. While digital media by Ron Rice is defined as a new medium which is a medium of communication technology and involves computers in it (either mainframe, PC or Notebook) that facilitate users to interact among users or with the desired information. As for the process of using or developing digital media In learning, there are several programs that can be used to design an information from the material, one of them is Macromedia Flash. Macromedia Flash is an animation program that has been widely used by designers to produce a professional design. Among the animation program, Macromedia Flash program is the most flexible program for animation purposes so there are many people who use the program. Macromedia Flash is useful for making animation, both animation Interactive and non-interactive animation (Madcoms, 2004: 2). Flash is not only used in making animation, but flash is also used for other purposes such as game making, web building, presentation, learning animation. The resulting animation flash is an animation of movie files. Movie generated can be graphics or text. The graph in question here is a vector-based graph, so when accessed via the internet, the animation will be displayed faster. In addition, flash can import sound files, video and image files from other applications.

Macromedia Flash program than other programs;

1. Can create interactive button with movie or other object.
2. Can make color transparency changes in the movie
3. Can make animated changes from one form to another
4. Can make animation movement by following the predefined path
5. Can be converted and published into several types, included ,swf, html, gif, jpg, png, exe, mov.
6. Can process and create animation of bitmap object
7. Flash vector-based animation program has the flexibility in making vector objects (Madcoms 2007: 3)

Based on the opinion of Macromedia Flash-based digital media and the learning, we can take the meaning that digital media based on Macromedia Flash can be used to convey information in the learning process, especially on the historical subjects. Macromedia Flash-based digital media is an alternative that can be used to improve student learning interest in understanding historical events. Through digital media Macromedia Flash, students can easily export what they want to know and help in discovering the interrelationships of historical business.

Therefore, the meaning and the values that exist in the historical event can be conveyed to the students. The draft Macromedia Flash-based digital learning media that will be utilized in historical learning are as follows:

No	Visual
1.	
2.	
3.	
4.	

The pictures above are product of learning media in the digital form that is operated through the device of computer technology and laptop that the user can do interaction activity in its use..In preparation of the media draft, the activities undertaken are to identify and collect material about the material to be done at the time of historical learning using, which is about the process of entry and development of the western nation in Indonesia.The next stage is the researchers prepare and collect materials and data used in the manufacturing of historical digital learning media as a medium that can be used in the learning process which are arranged and assembled systematically and made in accordance to the learners needs so a digital learning media ready to be tested.

The purpose of the digital media application is expected to increase interest and achievement of student history. This causes of the interest has a relationship to the learning achievement that can be a driving factor in the students to get a better learning achievement. Because with the learning interest, it is expected that the learning activities will run well and learners will be encouraged to continue to learn and obtain good learning achievement as expected.

3. The Effectivity of Digital Media in Learning

This research applies digital media to increase interest and historical learning achievement at high school student and tested with statistical test. To know effectiveness level of digital media, it have to do the series of statistical test, in this case researcher use SPSS 20. Before the effectiveness test, A first equality test is conducted to determine whether the experimental class and the control class are from the same variants. Then the effectiveness test results indicate that the learners' learning interest between the experimental class and the control class have a significant difference. Based on the result of statistical test with the help of SPSS 20 program, for t test, the mean value of post test experimental class is 102,55 and control class 98,96. While the T test results obtained value of 4.008 with a significance level of $0.000 < 0.025$, it can be concluded that there is a difference in average attitude between the experimental class and control class. Based on the results of statistical tests with the help of SPSS 20 program on learning achievement, obtained the average post test experimental class for 72.75 and post test control class of 68.16. As for the T test obtained value of 2.324 with a significance level of 0.024 smaller than 0.005 ($0.024 < 0.025$), then H_0 is rejected or there is average difference between the experimental class and control class. Therefore, the effectiveness test in this study indicates that the experimental class that uses digital learning media has a higher level of learning interest and higher achievement compared to non-digital classroom counter group. This research is in line with research that was conducted by (Kartikasari, 2013), entitled Development of Game Digital Learning Media of Motion And Style Material To Increase Motivation And Learning Results. The result of data analysis shows that known the feasibility of digital media game to improve motivation and student learning result. All aspects of the assessment, They are aspects of software engineering, aspects of instructional design and visual communication aspects based on the assessment of validators and reviewers included in the category of Very Good. Student learning motivation uses digital games increased from 54.6% to 78%. Student learning outcomes increased, with a gain standard of 0.55 included in the Medium category.

Other research conducted by (Suwarsito, 2011) under the title Development of digital learning media of urban geography subjects in improving student learning motivation. Based on the research, it is obtained the data result where the digital learning media developed to increase the learning motivation of the students for self study which is stated by the number of 97,67%, while the result data of the learning result obtained by the data before the digital learning media applied get the average number of 52 , 88. After the application of digital learning media obtained an average score of 59.29 or an increase of 10.82%. Research conducted by Paul Mihalidis and James N Cohen in Publishing The Open University Journal of Interactive Media In Education Volume 2013 (1), <http://doi.org/10.5334/2013-02>. Exploring Curation as a core competency in digital and media literacy education, this research explains in today's era almost everyone both young and adult utilize technology as a communication tool, both social media, online media, and various other applications in their daily life. Tak No exception in the world of education, where educators can take advantage of technology with the aim as communication tools in learning for example by utilizing technology in the form of gadgets that students have to use as learning resources. Expected through the development of media curation in the results of this research, educators have a more dynamic approach to students and can help reduce illiteracy and improve learning outcomes.

Conclusion

The good learning is a process which students can participate actively and feel the benefit after they have completed the learning. This cannot happen if teachers and students do not establish a communication. Communication between teachers and students during the learning process occurs when students have learning interest. Teachers are expected to make students' learning interests in order to be able to receive what they want to convey related materials taught. Boredom, boredomness, and no interest in subject are happened in students. Therefore, teachers are expected to create a new and more varied learning atmosphere, one of them by utilizing media learning. Then held this research with Utilizing macro flash-based digital media to increase interest in history learning. According to the research results data, there is a difference of average improvement in student achievement and interest in experimental groups using macro flash-based digital media with a control group that does not use media.

The results of research conducted, after give treatment between classes using based macro flash digital media has material knowledge level and have a better interest in learning compared to classes that do not use learning media. Based on these results, it can be drawn a conclusion that macro flash-based digital media effectively can be used to increase interest in high school students.

References

- Arsyad, Azhar. 2009. *Media Pembelajaran*. Jakarta: PT Raja Grafindo Persada.
- Baddeley, A.D., &G..J. Hitch. 1974. Working Memory, In G.A. Bower (Ed.), *The Psychology of Learning and Motivation: Advances in Research andTheory*, Vol. 8, pp. 47-89. New York: Academic Press.
- Berk, R. A. 2011. Research on Powerpoint®: From Basic Features to Multimedia. *International Journal of Technology in Teaching and Learning*.7(1), 24- 35.
- Borg, W.R dan Gall, M.D. 1983.*Educational Research an Introduction Fourth Edition*.Amerika: Manufactured in the USA.
- Gagne, E.D.1985. *The Cognitive Psychology of School Learning*. Boston, Toronto. Little, Brown and company.
- Gagne R. M. dan Briggs L. J. 1988.*Principlesof Intructional Design*. New York :HoltRinehart and Winston.
- Heneich, R. Molenda, M., Russell & Smaldino, S.E (2002), *Instructional Media And Technology For Learning*, 7th Edition. New Jersey: Prentice Hall. Inc
- KaifulUmam. 2013. Penerapan Media Digital Dalam Pembelajaran Apresiasi Batik Kelas X SMA Negeri 1 Blenga. *Jurnal PendididkanSeniRups Volume 1*, 100-105.
- Kemp dan Dayton . 1985. *Planning and Producing Instructional Media (Fifth Edition)* New York: Happer & Row, Publisher.
- Madcoms. 2004. *Macromedia Flash MX 2004*. Yogyakarta: Andi Offset.
- Madcoms.2007. *Mahir Dalam 7 Hari Macromedia Flash Pro 8*. Yogyakarta: Andi Offset.
- Paul Mihalidisdan James N Cohen.Volume 2013 (1).*Exploring Curation as a core competency in digital and media literacy education*. The Open University *Journal Interactive Media In Education*.
- Slameto. 2013. *BelajardanFaktor-faktor Yang Mempengaruhi*. Jakarta: RinekaCipta
- Sri Anitah. 2009. *TeknologiPembelajaran*. Surakarta: Yuma pustaka.
- Suwarsito.2013. Pengembangan Media Pembelajaran Digital Mata Kuliah Geografi Perkotaandalam Peningkatan Motivasi Belajar Mahasiswa. *JurnalJuita, Volume 1*.
- Syaad Pathmantara. 2014. Pengembangan Pembelajaran Interaktif Perkuliahaan Dasar-Dasar Rangkaian Listrik Dengan Berbasis Internet. *Jurnal Cakrawala, Th XXXIII. No. 2*
- Zaini, Imam. 2013, Penerapan Media Digital Dalam Pembelajaran Apresiasi Batik Kelas X SMA Negeri 1 Blega.