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Development of Blog-Based Audio Visual Learning Media to Improve Student Learning Interests in Money and Banking Topic

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ABSTRACT

This research aims to produce audio-based learning media for blogs on the subjects of money and banking. This study used research and development methods with 4D Thiagarajan. There are four stages in Thiagarajan's 4D model; the initial needs analysis stage (define), the prototype (design) stage, the development stage based on expert advice and the field trial (develope), and the publication stage (disseminate). The data analysis technique used was quantitative descriptive technique. The results of research and development carried out in the form of audio-based learning media blog on economic subjects of money & banking material which contains a homepage, learning tools, learning materials, videos, LKPD, assignments, commentary features and social media. The audio-visual media based on money & banking material developed was very good ratings from media experts with an average score of 4 (after revision) and a material expert of 3.6 (scale 4). Students also gave a good response with an overall average score of 3.6, and an increase in student interest in learning with a difference of greater than 1 is 28.63%.

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1. Introduction

The learning process is identified with the delivery of information or communication, in this case the learning media is an inseparable part and the most important part in determining the success or failure of an information delivered, in this case learning materials to students well, so that the learning objectives that have been designed can be achieved with a maximum.

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For the achievement of a learning goal, the teacher has an important role in designing a learning, according to (Rosa, 2015) to achieve the learning objectives teachers must focus on the affective domain including the interests, motivation and attitudes of students in learning have an impact on the achievement of cognitive and psychomotor aspects. This is also in line with the opinion of Suhelmidam (2019) saying that the learning process undertaken by teachers must have a better impact on changes in students' attitudes and cognitive.

The success of the learning process in class can be seen from how much interest and involvement of students in participating in the learning delivered by the teacher in class. Sofian Amri in (Mulyasa, 2013) states that in the 2013 curriculum teachers not only address knowledge to students but also must play a variety of roles that can develop students' potential optimally. For this reason, certain techniques are needed that can be used to help the success of the teaching and learning process, including the use of interactive learning media that can involve all students.

This interactive learning media can be a combination of a variety of media and technology in accordance with the development of the digital era that is increasingly rampant among participants of education and even the world community today. This is in line with the opinion of Lies (2011) Information technology components are subsystems formed in connection with the use of information technology. To be able to take advantage of information technology, at least three main components are needed, namely hardware, software, and people (brainware). These components can be used as a more varied learning media and based on interactive technology.

Kennedy et al., (2016) in their research stated that the use of interactive learning media in the learning process was considered to be very effective in increasing student learning activities and learning achievement. This is supported by the opinion of Miarso (2007) expressing that the learning media as everything that can be used to stimulate students' thoughts, feelings, concerns and wishes so that it can encourage the learning process in students. So by using the right learning media can stimulate learning interest in students themselves. This is in line with Nurhasanah et al. research (2016) showing that interest in learning has a significant influence on learning achievement. This is also in line with the results of Erwiza et al. (2019) research which states that achievement is not only processed by the main and non-physical environment but is also supported by interest in learning.

In increasing students' interest in learning, teachers can do one of them by using interactive learning media. In accordance with the opinions of Tranminingsih et al., (2017) the media also helps in increasing student understanding. When choosing the right media, students will have an interest that will directly lead to an interest in learning and will automatically trigger motivation in learning. In line with research conducted by Maulida et al. (2019) that the use of media development media learning media Quiz Powerpoint and Wondershare can increase student motivation.

Because of the importance of interest in the learning process, new breakthroughs and innovations are needed in the development of instructional media, especially on economic subjects, material demand and money supply. However, the reality that occurred in the field during the initial observations shows that teaching and learning activities (PBM) in SMAN 1 Kelayang in economic subjects material demand and supply of money shows the activity of students in the teaching-learning process is passive, which tends to be only as a recipient. Some students did not seem to pay attention, some played cellphones, chatted with their next-door friends, and were sleepy and did not even understand the material presented by the teacher. Daryanto (2010) is then supported by teachers who are unable to create fun learning media in the classroom for students.

The rapid advancement of information and communication technology offers new facilities in learning that cause a shift in learning orientation from outside-guided to self-guided and from knowledge-as-possession to knowledge-as-construction. In the 21st century technological and information advances are so fast offering a variety of new facilities in learning that lead to a dynamic and more flexible learning orientation in accordance with the needs and skills that must be possessed by students, so that the movement of industrialization 4.0 appears. which is currently being intensively carried out with a new literacy movement that focuses on three main literacies namely, 1) digital literacy, 2) technological literacy, and 3) human literacy (Aoun, 2017).

To achieve the 21st century literacy movement and technological development in education, innovation is needed in classroom learning such as the use of digital-based learning media using blog-based audio visual learning media. The combination between audio-visual learning media and blogs is an innovation, but there are modifications in it that are tailored to the needs of students and learning objectives to be achieved in accordance with the basic competencies taught.

Basically blogs are also widely used by teachers and are accessed by students unknowingly, it's just that blogs that are accessed by students in search of assignments are only limited to writing that provides information without any special features used in supporting an interactive and easy to understand learning process. Most students only copy their writings in the blog without any guidance from the teacher and are limited to the media looking for answers to assignments.

Therefore in this research development the writer combines audio-visual learning media with a blog, which is designed according to the needs of students in supporting the learning process in the classroom and makes it easier for teachers to deliver teaching material in classrooms that are more contemporary and easily accessible to students wherever and whenever as a reading source that contains learning videos, references, and various other features that have been designed in accordance with the analysis of student needs.

Blog-based audio visual learning media is a breakthrough of existing learning media, it's just that there is a renewal or innovation by adding elements of the blog inside. Blogs are the largest library in the world, because blogs can function as

learning resources and learning media for students at the same time. According to Kristiyanti (2016) in her research, the development of blogs as learning media can help students better understand material as media and learning resources that can be used no time limits are centered on students and digital.

The role of the internet in education is very beneficial because of the ability to manage large amounts of data. Information technology has become the largest computer network in the world, which can function well if supported by a computer device with good software and with teachers who are skilled in its use. Using internet facilities with all the facilities that make it easy to access various information for education that can directly increase students' knowledge for their success in learning. In its use as a support for the learning process, blog media can be used by teachers to deliver digital teaching materials. According to reports from internet and the American life project blog, it has become commonplace among the public. In 2004 blog readers increased by 58%, to 27% of total internet users or 32 million people and 12% of those who read blogs were also actively adding comments to the blog.

This is reinforced by the audio-visual learning media that are characteristic of the digital and multimedia era, because they contain two main elements in them, namely: the elements of sound and images and writing, which are signs or characteristics of the digital technology era. According to Latuheru in (Winarno et al., 2009) states "that in learning, the role of multimedia is becoming increasingly important in the present, because these media are designed to complement each other so that the whole system becomes efficient and effective, where one unit is better than the number of parts (the whole is greter that the sum of it parts) ". By using audio visual media can train independent and active students in the learning process. In addition, Karuniakhalid et al., research (2019) states that the development of ICT-based learning media can increase student learning motivation compared to conventional media. The emergence of learning motivation is certainly triggered by an interest that gives rise to encouragement.

According to Dale in research Hasan (2016) states that audio visual learning media has many benefits as long as the teacher plays an active role in the learning process in guiding students to be more actively involved in the KBM process such as, the ability to improve achievement, the ability to increase understanding, the ability to improve learning transfer, the ability to provide reinforcement, and the ability to improve memory. That is why blog-based audio visual learning media is used to support learning in creating new breakthroughs in increasing student interest in learning.

In its use as a support for the learning process, audio-based learning media for blogs can be used by teachers to deliver digital teaching materials. Blogs as an application service from the internet can be used by teachers and students as an unlimited learning resource, especially supported by images and sounds such as videos, moving pictures etc. The teacher can fill in all information related to learning material. Viewed from the other party, students can download information that is appropriate to the topic and desired goal. The use of blogs as

learning media as well as learning resources will change the way of learning and learning techniques become varied. This can increase student interest in learning something.

According to Nugroho et al., (2017) Web can be used as an alternative medium for delivering knowledge, online learning media, and solutions to the problem of lack of conventional learning hours in class. Blogs are the largest library in the world, because blogs can function as a source of learning and at the same time a learning medium for students. In line with pendapa Wahyudi (2014) who stated that blogs have various conveniences, blogs provide an opportunity for learning activities to be more interesting and interactive. Through blogs, relevant material sources can be published so that they can be accessed.

Sartono (2016) in the journal utilization of blogs as alternative learning media stated the advantages of having a blog in the learning process as follows: (a) blogs can be used as learning homes and sharing of teachers, (b) blogs can ease the tasks and burdens of teachers in teaching, (c) blogs can increase students' interest in learning and (d) blogs can be accessed by the public. But blogs also have shortcomings such as, blogs are susceptible to viruses, hackers or spyware, blogs are easily copied and paste by other people who are not responsible, but this can be overcome or minimized by using safe programming languages and blogs are made interesting and have writing control Correct content (source dowaen.wordpress.com).

The main purpose of this research is to increase the learning interest of students, so that they are not interested, motivated and like the lessons delivered by the teacher both in class and in the classroom. This is in line with research conducted by PT Marina et al. (2019) The implementation of learning using the system can motivate students to be approved, active, disciplined, and provide space for competition, creativity, and independence, according to their talents, interests, and physical and psychological development of students towards positive behavior.

2. Methodology

Types of Research

This study used a research and development (R&D) method which is a research method used to produce certain products, and test the effectiveness of these products (Sugiyono, 2015). The research development is a process used to develop and validate research products (effective products to be used in schools). A 4D development model consisted of Define, Design, Develop, and Disseminate (Trianto, 2010). But the disseminate stage was not carried out because it requires too much time and a large number of samples. In this research a product developed in the form of a blog-based audio visual learning media that is beneficial for the teaching process of the High Schools. Analysis of the data used in the form of quantitative description analysis.

Development Style

The development model of the Four-D Model was suggested by Sivasailam et al. (1974). This model consists of 4 stages of development, namely Define, Design, Develop, and Disseminate or adapted into a 4-D model, which is defining, designing, developing, and distributing. This model can be seen in Figure 1. The following 4D developers:

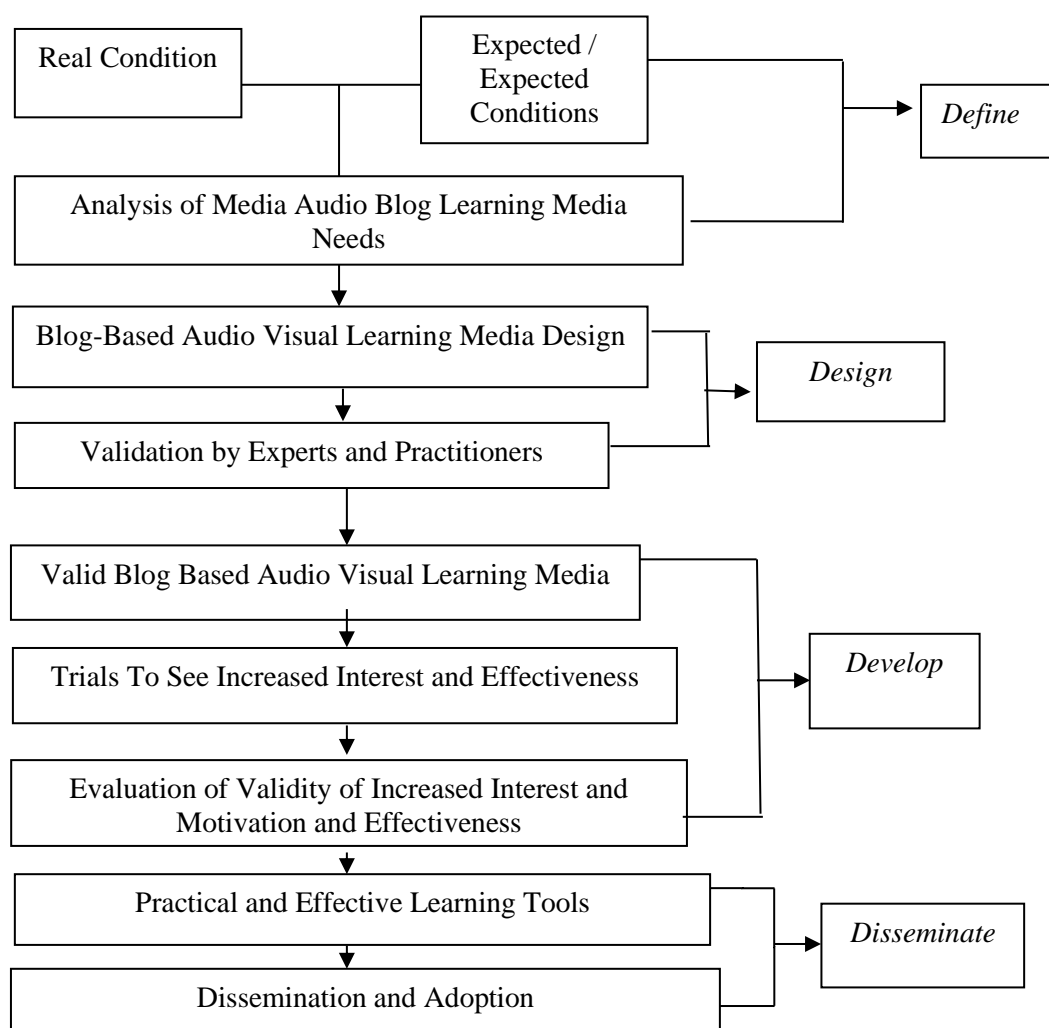


Figure 1. 4D Development

Product Trial

The trial was intended to collect data that can be used as a basis for determining the level of validity, practicality, and effectiveness of the products produced. In this section sequentially stated, 1) the purpose of the trial, 2) the design of the trial, 3) the subject of the trial, 4) the location of the trial, 5) the type of data, 6) the instruments of data collection, and 7) the techniques of data analysis.

Expert quantitative descriptive analysis

Analysis of the assessment of material experts, media experts, economics subject teachers and students' responses was carried out by calculating the average score of each aspect and the overall average score of responses with the following steps; (1) Finding the average score of each aspect (2) Looking for the overall average score, (3) The next step was to convert the average score into a qualitative level of product qualitatively based on the Widoyoko classification label (Table 1).

Table 1. Widoyoko's Classification

Interval Reached	Category
$3,25 < M < 4,00$	Very good
$2,50 < M < 3,25$	Good
$1,75 < M < 2,50$	Less
$0,00 < M < 1,75$	Not good

3. Results and Discussion

Define Phase

The definition stage was done as a first step in designing audio-based learning media for blogs on economic subjects. This stage was carried out several analyzes starting from, needs analysis, curriculum analysis, concept analysis, goal analysis and student analysis.

Initial (Need Analysis)

This data analysis was conducted as a preliminary study using a needs analysis questionnaire instrument that was distributed to students. This needs analysis questionnaire contains questions that include learning resources and learning media used. The questionnaire was distributed to 35 students.

Data obtained from the analysis questionnaire that has been distributed obtained the actual conditions of learning in the classroom. There are several problems that arise, especially the lack of interest in learning of students due to the use of learning media that are not creative and monotonous. So that makes students feel bored and fed up with the learning process in class that only uses learning media in the form of PPT and LCD which only contains slide material. And even just in the form of an economic learning handbook that is used as a source of learning and learning media with various examples of images contained in textbooks.

Curriculum Analysis

Curriculum analysis is useful for determining the competence in which the material will be developed. Identifying the needs in learning is important to do so that the teaching system can be adapted to the characteristics of the learners. This

will have an impact on feeling happy, interested and easy to understand teaching material.

Concept Analysis

At this stage the outline of the contents of the material and the description of economic material are carried out on the basic competencies 3.7. the author analyzes the material and details two sub learning materials, namely, first the demand for money and the factors that influence it, second the supply of money and the factors that influence it. After the material is formulated, it is then explained the parts contained in the learning material presented in Figure 2.

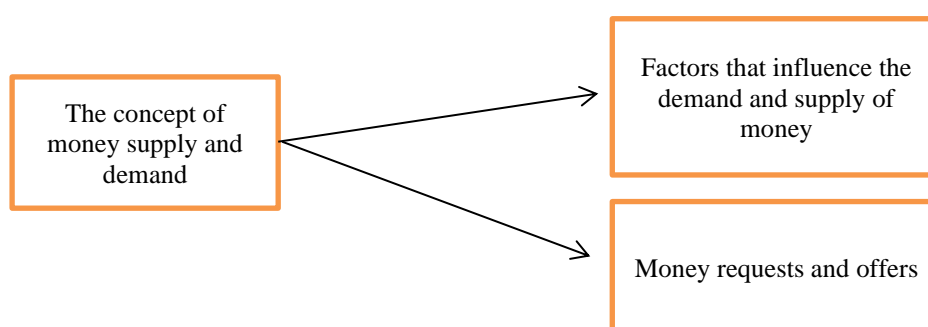


Figure 2. Concept Analysis Schema

Formulate goals

The purpose of learning is focused on the use of blog-based audio-visual media as a medium of economic learning on money and banking material that can make it easy for students to access media and learning resources that can be accessed anywhere and anytime and, most importantly, the use of this media is expected to attract interest learn students to be more active in the learning process.

Characteristics analysis of students

Adequate facilities in schools can now be used to support teaching and learning activities in schools and most importantly students are accustomed to using smartphones and computers and the internet which is not a stranger to students.

Design Stage

At the design stage, this was carried out with a number of steps for preparing expert evaluation questionnaire instruments, choosing the format and initial design of blog-based audio-visual media development products. For the Expert evaluation questionnaire, there are 2 types of questionnaires used in the development of blog-based audio visual learning media, namely: Blog-based audio-visual media evaluation questionnaire consisting of an evaluation of material expert questionnaire, media expert, and economics teacher.

Development Phase

The develop phase is the process of assessing the media by experts and students' responses to determine the feasibility of a blog-based audio-visual media developed.

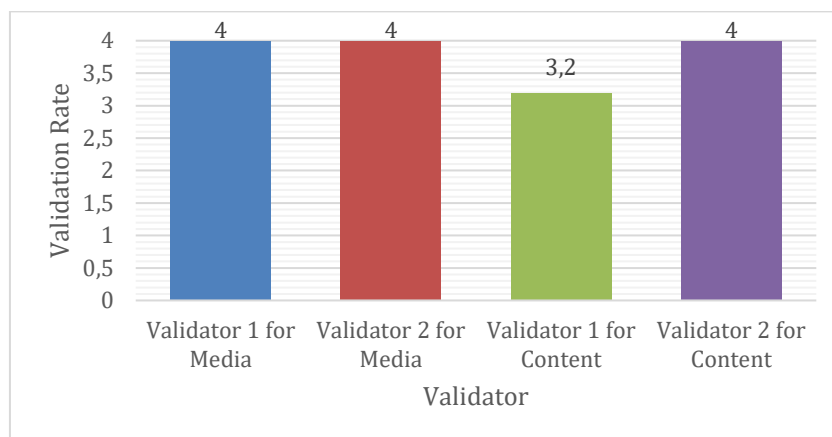


Figure 3. Expert Validation

Figures 3 shows the results of the validation of media experts with the highest percentage of 100% with an overall average value of 100% while the validation of material experts with the highest percentage of ratings is 100% and the lowest is 80% so that the audio-based audio visual learning media after the revision is categorized as very valid and can be used in the learning process.

Blog-based Audio Visual Media Display

Figure 4 and Figure 5 show the screen shot of the media that has been developed in this research. In the Figures, the display is commencing with the opening display which is showing the greeting statement to the visitors.



Figure 4. Greeting as the opening screen



Figure 5. The menu window of the media

Paired t-test

Testing groups of students who use blog-based audio visual media (class X 1) in the learning process will have a higher average score compared to groups of students who are in the learning process without using blog-based audio visual learning media. The following are the results of the different tests for grade X 1 students (treatment classes) using the t-test (Table 2):

Table 2. Paired Test t-test Treatment Class

Variabel	t-count	Sig.	Level of Significant
Pre-test & Post-test	-15,791	0,000	0,05
N : 35			

Based on the Paired Sample t-test table obtained significance = 0,000 less than a significant level = 0.05, then this means that there is a significant difference between the average value before treatment with the average value after treatment. Overall students' responses to the use of blog-based audio visual learning media were very positive towards all aspects of the development of blog-based audio-visual media which can be seen in the Figure 6. Based on the conversion value of the Figure 6 above, each aspect of the audio-based media based on blogs in the good category. So it can be concluded if the audio-based learning media for blogs on money and banking material developed is feasible to be used and can attract students' learning interest as evidenced by the pre-test and post-test scores that have been done with the pre-test and post-test scores have a difference value greater than 1 ie 28.63 thus the difference is significant.

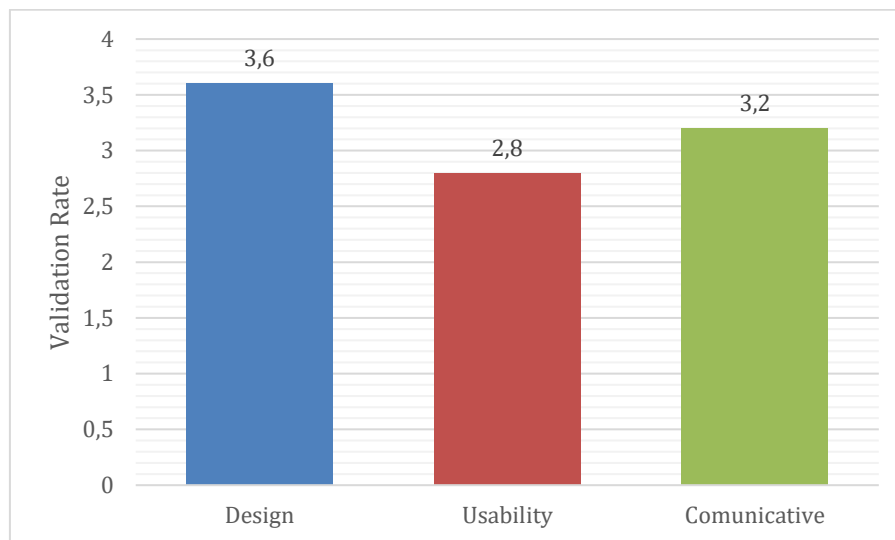


Figure 6. Average Student Interest Interest Scores for Media Blog-Based Visual Audio

This is also reinforced by the Paired Test t-test obtained significance = 0,000 less than a significant level = 0.05, meaning that there is a significant difference between the average value before treatment with the average value after treatment. This is also evident from the enthusiasm of students who are more active in following the learning process using blog-based audio visual media than before use.

Desseminate

The desseminate stage is an online blog-based audio visual learning media publication stage with internet assistance. Publication is done by registering a blog to search engines such as Google which is popularly used by various groups. So that blog-based audio visual learning media can be accessed by all groups without exception by students as learning media and learning resources that can be accessed anywhere and anytime.

4. Conclusion

The results of the study and findings in the field show that the learning interest of students who use media-based audio visual learning media is much more increased than students who only use conventional learning media. This proves that the selection of the right media and the use of innovative and varied learning media will be able to attract students' learning interest in class. For this reason, teachers need to be able to use and develop interactive media as a source of learning, including with this audio-visual learning media produced by this blog. Blog-based audio visual learning media on economic subjects material demand and supply of money has been successfully developed using the 4D model which consists of 4 stages, namely (1) Define, (2) Design, (3) Development, (4)

Disseminate. Of the four stages that have been made, then obtained appropriate and valid learning media obtained for use in the economic learning process material of demand and supply of money.

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