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Development of Learning Multimedia Using Macromedia Flash 8 in PAI Subject at SMP

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Abstract: Based on observations at a junior high school in Padang, it was found that Islamic Religious Education learning still felt boring. The factor that caused this boredom because the media used by teachers were still using traditional media. The solution to this problem requires the latest media that is fun for students. This study focused on the objective of examining the syntax of designing learning multimedia using Macromedia Flash 8 technology and the validity of the products developed. The type of research in this study is development research. The subjects of the trial in this study were one Islamic Religious Education teacher in grade VIII and two classes (control class and trial class) totaling 40 (fourty) students. The data collection techniques in this study were observation and questionnaires. The data analysis technique in this study was the analysis of the validity of the material, media, and language. The results of the study showed that the syntax of product design started from needs analysis, data collection, study of the use of Macromedia Flash 8, planning, making multimedia with Macromedia Flash 8, implementation of media in the field, and media evaluation. While the results of the product validity showed that the product was valid. The research results recommendations show that products made using Macromedia Flash 8 are very valid and very suitable for use in schools.

Abstrak: *Berdasarkan pengamatan di sebuah sekolah menengah pertama di Padang, ditemukan bahwa pembelajaran Pendidikan Agama Islam masih terasa membosankan. Faktor yang menyebabkan kebosanan ini karena media yang digunakan oleh guru masih menggunakan media tradisional. Solusi untuk masalah ini memerlukan media terbaru yang menyenangkan bagi siswa. Studi ini berfokus pada tujuan untuk meneliti sintaksis perancangan multimedia pembelajaran menggunakan teknologi Macromedia Flash 8 dan validitas produk yang dikembangkan. Jenis penelitian dalam studi ini adalah penelitian pengembangan. Subjek uji coba dalam penelitian ini adalah satu guru Pendidikan Agama Islam di kelas VIII dan dua kelas (kelas kontrol dan kelas uji coba) yang berjumlah 40 (empat puluh) siswa. Teknik pengumpulan data dalam penelitian ini adalah observasi dan kuesioner. Teknik analisis data dalam penelitian ini adalah analisis validitas materi, media, dan bahasa. Hasil penelitian menunjukkan bahwa sintaks desain produk dimulai dari analisis kebutuhan, pengumpulan data, studi penggunaan*

Macromedia Flash 8, perencanaan, pembuatan multimedia dengan Macromedia Flash 8, implementasi media di lapangan, dan evaluasi media. Sementara hasil validitas produk menunjukkan bahwa produk tersebut valid. Rekomendasi hasil penelitian menunjukkan bahwa produk yang dibuat menggunakan Macromedia Flash 8 sangat valid dan sangat cocok untuk digunakan di sekolah.

Keywords: Multimedia Development, Macromedia Flash 8, Islamic Religious Education (PAI), Junior High School (SMP)

INTRODUCTION

The development of educational technology has influenced the way of teaching and learning Islamic Religious Education. Learning that was previously boring has become interesting audio-visual learning with the addition of graphics and sound (Siregar, et al., 2020). Munir (2017) postulates that the use of advanced educational technology empirically enhances students' creativity as well as improve their achievement. Today must have elements of TPACK (technology, pedagogy, and content knowledge) (Schlax, 2023). If education does not have elements of TPACK, it will have an impact on the education being left behind. New and sophisticated technologies such as virtual reality, augmented reality, artificial intelligence, and machine learning are changing the way we use and interact with technology. These technologies can help us learn and develop our thinking skills in an interesting way (Getuli et al., 2020). These technologies offer interactive and immersive experiences that can improve our attention, memory, and problem-solving skills. In other words, these technologies make learning more fun and effective (Iliÿ et al., 2021). Furthermore, these new technologies have been found to increase student engagement and motivation, resulting in increased academic achievement (Zhu et al., 2022). Technology will continue to experience significant progress, especially in the field of learning media. Many types of new software that can be utilized in educational media have been created as a result of this progress. These programs include Macromedia Flash 8. Ardiansyah stated that "this product is software that can be used as a tool to obtain dynamic aspects in the teaching and learning process or in the process of making interactive cartoon/animation films" (Ardiansyah, 2013: 5). "This technology was initially produced before 2005, then in 2005 this product continued to develop to the latest technology today, namely Macromedia Flash 8 technology" (Chandra, 2017, p. 1).

Based on the thesis research of Reynolds Chandra (2017) entitled Development of Learning Media in Multimedia Etymology Lessons Using *Macromedia Flash* Class X SMK Negeri 1 Kerumutan, Pelalawan Regency**.** This study deduces that the validity of learning media in the material of understanding Multimedia Etymology to produce information in class X TKJ SMKN 1 Kerumutan is assessed by the validator with various studies with the criteria for assessment aspects, namely: instructional requirements, cosmetic requirements, program requirements and curriculum requirements with a very valid category. Further research is the thesis of Hidayati (2022) entitled Development of Interactive Multimedia in Civic Education Learning Class XI SMK Padang Pariaman Regency. This study deduces that the product of this study produces interactive multimedia citizenship for class XI of the Professor Muhammad Zein foundation using the *Interactive Multimedia (IMM) Development model* consisting of five steps, namely

analysis, design, development, evaluation, and implementation. the results of the validity of the interactive multimedia citizenship product for class XI SMK Yayasan Profesor Muhammad Zein show very valid criteria after being revised once. Finally, Radhiatun Nafsi's thesis research (2022) entitled Development of Interactive Learning Media Containing IMTAQ for Science Subjects in Class VII SMPIT/MTS. This study concludes that interactive learning media containing IMTAQ that has been produced for science subjects on the Solar System material in class VII SMPIT/MTs is very much needed and suitable for use in learning at school and at home, the validity of interactive learning media containing IMTAQ for science subjects on the Solar System material shows results in valid criteria with an average percentage of 91%.

Based on the relevant research above, it can be concluded that learning media using macromedia flash 8 is very valid in the assessment of experts. However, the difference between this research and relevant research is first, this research examines the borg and call development model modified by Sugiyono, in contrast to other relevant research using the 4D development model, and the Multimedia Development Model (IMM) development model. Second, this research examines PAI subjects, in contrast to other relevant research examining science subjects, civic education subjects, and multimedia etymology subjects. Based on the results of observations and interviews at the Junior High School in Padang, "The most difficult Islamic Religious Education learning material to master because it is boring for students is the Al-Quran Hadith (tajwid) material. experienced a decline, namely below the KKM" (observation and interview at the UNP Padang Development Laboratory Junior High School with the 8th grade Islamic Religious Education Teacher, Mr. Syahrul, SHI, on June 21, 2023 at 11.50 - finished).

This research was conducted in two classes, namely class X1 and class X2. Meanwhile, in the class the cause of low student learning outcomes is because the technology and media used are still Microsoft Power Point. The researcher found that there has been no use of Macromedia Flash 8 in Islamic Religious Education learning in junior high schools, in this case SMP Pengembangan Laboratorium UNP Padang. Based on the explanation above, it can be concluded that the research wants to know the syntax of making, validity, practicality, and effectiveness of the product being developed. However, the description in this article is focused on knowing the syntax of making and the validity of product development. The solution to solve the problem of boring Islamic Religious Education learning which has an impact on low student learning outcomes is to develop new media that is fun for students. The media offered in this study is Macromedia Flash 8.

METHOD

This research approach uses a development approach. This type of research uses quantitative research. Research and development are methods implemented in defining product validation and development (Sugiyono, 2015; Putra, 2015).

Product development in this study is a product in the form of learning media using Macromedia Flash 8 in the Islamic Religious Education subject, Al Quran (Tajwid). According to Sugiyono, the research method is a proven way of receiving data so that it has certain goals and functions (Sugiyono, 2015; Putra, 2015). The method applied in this research and development applies the Borg and Gall research model modified from Sugiyono (Sugiyono, 2015). The Borg and Gall research model consists of 10 steps, 3 additional steps are design revision, product revision, and mass production (Bafirman, et al., 2023)

Based on the sample in this study, there was 1 Islamic Religious Education teacher and two classes, namely the control class and the trial class, totaling 40 students at SMP Pembangunan Laboratorium UNP Padang.

The research instruments are observation and questionnaires. While the data analysis technique in this study is the analysis of the validity of the material, media, and language.

RESULTS AND DISCUSSION

Results

Based on the explanation of the stages of learning to design multimedia products using Macromedia Flash 8, the following results were obtained

First, analyzing needs. The first stage related to needs analysis, the researcher conducted observations and interviews with PAI teachers at SMP Pembangunan UNP Padang. Based on the results of observations and interviews with PAI teachers, information was obtained that students became bored when learning PAI subjects on Al-Quran Hadith (Tajwid) material. This boredom occurs due to the lack of application of the latest technology applied by teachers such as Canva, Articulate Storyline 3, and especially Macromedia Flash 8. The technology applied by PAI teachers still used Power Point technology. This has an impact on the low results of students' PAI subject scores for Al-Quran Hadith (Tajwid) which are below the KKM.

The weakness of Power Point media compared to Macromedia Flash 8 is that Power Point media does not provide animation or audio. While Macromedia Flash 8 multimedia has advantages, namely first, there is audio and visual Qs. Al Baqarah verse 143 without having to be listened to using the internet, for example via YouTube, Spotify, Joox, and so on or can be listened to offline. Second, this media provides moving cartoon animations that make children more enthusiastic about learning. Third, there are songs about Tajweed that can be listened to offline. And fourth, if students want to learn using YouTube, this media also provides a Tajweed reading link that is connected to YouTube.

Second, data collection. Details of data collection, initial information collected by researchers, namely the curriculum implemented by the school. The curriculum used by the school is the independent curriculum. This curriculum has been implemented for the past 3 years. Then, the advantages of this school are that the learning model used has been adopted from the independent curriculum, for example, it has used a collaborative learning model (cooperation), the approach uses Student Based Learning (student-centered learning), and the methods used have used discussion methods, questions and answers, demonstrations, lectures and other methods. Furthermore, the learning outcomes of class VIII students with low KKM scores. This can be proven through the table of student scores that have been explained in chapter I, the conclusion of which is 8 X_1, namely 40% (8 people) and those who did not pass were 60% (12 people). While the percentage of students who completed KKM in class 8 X2 ranged from 35% (7 people) and those who did not complete ranged from 65% (13 people). Then the tools/technology and media used by the teacher used Power Point.

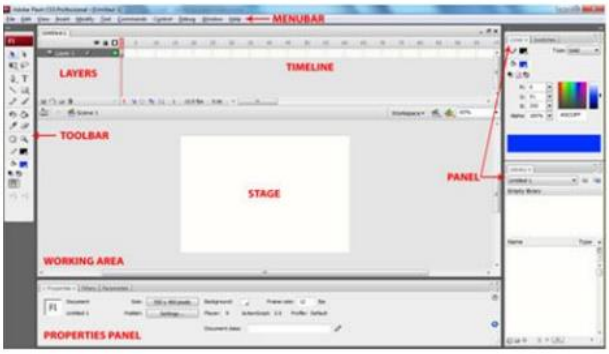
Then, in the 8th grade Islamic Religious Education subject, the lesson that makes students most difficult to learn is the Al-Quran Hadith lesson, namely memorizing the verses presented in the CP and ATP, namely Al Baqarah 2: 143. In addition, students have difficulty determining the reading of the verse. In addition to the Al-Quran Hadith material, other learning materials that are difficult for students to understand are the history of Islamic culture. Meanwhile, in other lessons, namely aqidah, morals and fiqh, students master them very well. The reason the

researcher chose the Al-Quran Hadith material as a study is because the researcher has a better grasp of the Al-Quran Hadith material than the History of Islamic Culture material. Furthermore, evidence of students' difficulties in learning the Al-Quran Hadith (Tajwid) can be seen in the results of students' low PH scores for the Al-Quran Hadith. Then, all the facilities needed for product development are available, starting from LCD projectors, laptops and speakers which are very necessary for learning.

Third, learn how to use Macromedia Flash 8 technology.

The initial display when opening this application will display various work area options. The steps to open the Macromedia Flash 8 application are as follows:

1. Start Press the start button
2. Press the all programs button
3. Press the macromedia button
4. Press the Macromedia Flash 8 button (Chandra, 2017).



The Macromedia Flash User Interface consists of: Title Bar, which is the initial part of the file name (document) or program title that is being used by the user or is currently active. Menu Bar, which is an operating guide found in Macromedia Flash which is located under the Title Bar. Timeline Panel, which is a panel that functions to organize layers, timing, objects, and settings for the length or duration of the movie page to be designed. Properties Panel, which is a panel that contains information displayed related to the object being run, such as images, text, stage, and so on. Stage, which is a work page that functions to place various types of flash objects that will be displayed. Tool Box, which is part of various tools or tools that have their respective roles in various needs, such as designing, editing, and arranging images or objects. Library Panel, which is a panel that functions to store objects, such as movie clips, sounds, buttons, graphics, videos and so on that are operated in application design (Chandra, 2017).

Fourth, Planning. This stage begins with determining the CP (Learning Achievement Achievement) and ATP (Learning Objective Flow) that are suitable to be used as multimedia learning content. There are 5 CP sections in the Islamic Religious Education subject, namely the Al-Quran Hadith, aqidah, morals, fiqh, and Islamic Cultural History. The CP section that is used as content in this study is the Al-Quran Hadith. While ATP consists of 11 indicators and learning is carried out for 5 weeks or 15 JP (Learning Hours). The next stage is to find books, journals and videos related to Islamic Religious Education with the Al-Quran Hadith material. The book that the researcher used in making this product is guided by the Azizah journal (2019) entitled "Development of an Android-Based "Smart Tajwid" Application to Increase Students' Tajwid Learning Motivation in Islamic Religious Education Subjects." The videos that are the guidelines for this product are the Ngaji

Bareng YouTube channel and the Al Mustari-Madrasah online YouTube channel. The next stage is to look for books related to Macromedia Flash 8. The scientific article used as a guide in making this product is Chandra's Thesis (2017) entitled Development of Learning Media in Multimedia Ertymology Lessons Using Macromedia Flash Class X of SMK Negeri 1 Kerumutan, Pelalawan Regency.

The next step is to find a YouTube channel that discusses Macromedia Flash 8. The YouTube channels used as references are Julie Haryanie's Channel entitled "How to Create Interactive Learning Multimedia-Macromedia Flash 8", PGSD B 2018 Channel entitled "Learning Media Using Macromedia Flash 8", Tutorial Advertisement Channel entitled "How to Create a Simple and Cool Walking Car Animation-Macromedia Flash 8 Tutorial", Dody Priyatmono's Channel entitled "Adobe After: Creating a Walking Person Animation", Ghofir Ismail's Channel entitled "Short Tutorial on Inserting Background & Sound Effects on Buttons in Macromedia Flash 8 for Beginners", Campus Tutorial Channel entitled "How to Create Talking Animation Videos in Canva - Super Easy", Era Hami Isnaini Channel entitled "Tutorial on Making Blinking Eyes and Moving Mouths in Macromedia Flash", Yuyu Animation Channel entitled "Tutorial on How to Insert GiFs into Macromedia Flash Animations", and FISMATECH Channel entitled "Macromedia Flash 8: Tutorial on Making Screen Change Buttons".

The next step is to find supporting applications in product creation (multimedia learning). Another application that supports product creation is Canva. This application helps in getting the background needed to create a product. Frepik, this application helps in getting the background needed to create a product. Pinterest, this application helps in getting the background needed to create a product. Youtube, this application helps in learning how to use the Macromedia Flash 8 application, taking the sound needed by the product, and taking pictures related to the product. Y2Mate, this application helps in downloading videos provided by YouTube. Arabic Keyboard Lexilogos, this application functions to help create Arabic letters. Cut audio online. This application functions to help cut the necessary parts of the music and delete unnecessary parts of the music. Compress Audio Online. This application functions to reduce the size of the audio used in the product. Remove background.bg, This application functions to remove the background from existing images. Remove online video background. This application functions to remove the background from videos that have been downloaded on YouTube via Y2 Mate. Convert MP3 to WAV online. This application functions to convert MP3 audio that has been downloaded via Y2mate to WAV.

Fifth, Multimedia Creation. Multimedia creation starts from the loading stage design, page title design stage, menu stage design, CP and ATP stage design, material stage design, profile stage design, and instruction stage design. Details of product manufacture can be seen in table 1 attached.

Sixth, Implementation. The product results were tested in the usage trial and field trial. Before conducting the trial, a validity test was conducted. The results of the validity test can be seen in table 2 in the appendix. The usage trial involved 10 students. The students came from 5 classes. control and 5 trial classes. Meanwhile, the field trial involved 40 students. The students came from 20 control classes and 20 trial classes. The trial results showed the practicality and effectiveness of the product.

Seventh, Evaluation. The results of input provided by teachers and students during the trial use and field trials become evaluation materials in refining the developed product.

Product revisions can be seen in table 3 in the appendix.

This product starts from the first stage of manufacturing Loading. second, the title page. Third, the main menu. Fourth, hints. Fifth, profile. Sixth, CP and ATP. And Seventh, Matter. The material level consists of 3 parts, namely the first, Haq Al-Hurif, which contains the procedures for reading and the sound of hijaiyah letters. The reading procedure is accompanied by interesting animations and hijaiyah letter sounds accompanied by interesting alif, ba, ta and tsa songs. Second, Mustahaq Al-Huruf which contains the law of bread and tanwin, the law of mim maut, the law of mim and nun tasydid, and the law of mad. Third, How to Read Qs. Al-Baqarah verse 143. In this section there are audio and visual Qs. Al-Baqarah verse 143. The audio used is the voice of reciting the Al-Quran with the ummi method, while the visual is a picture from Qs. Al-Baqarah verse 143.

Discussion

The development of this product produces learning multimedia using Macromedia Flash 8 which is accompanied by audio, visuals, songs, animations and interesting buttons. The advantages of this product are first: there is animation in the product. Second, there are songs that are interesting for students who forget the hijaiyah letters. Third, there is audio and visual material so that students only hear and see and can repeat the material. Fourth, this product can be run offline, but if students want to see it online, this product is facilitated with a youtube link with a youtube channel that can be accounted for. Fifth, this application can be distributed via WA, Telegram and Line which are social media that are often used by students.

As for product validity, the validation results obtained the validation results of material 1 reached 80% (very valid) and validation of material 2 reached 80% (very valid). Validation of media 1 reached 94.3% (very valid) and validation of media 2 reached 61.43% (valid). Validation of Language 1 reached 94.5% (very valid).

Based on relevant research and this research, the difference is first, this research examines the borg and call development model modified by Sugiyono, in contrast to other relevant research using the 4D development model, and the Multimedia Development Model (IMM) development model. The borg and call model actually consists of 10 steps, but these steps were modified by Sugiyono into only 7 steps. The 4D model used by relevant research consists of only 4 steps. Furthermore, the IMM model consists of only 6 steps. So this research process is more complex than relevant research.

Second, this study examines Islamic Religious Education subjects, in contrast to other relevant studies examining Natural Sciences subjects, Citizenship Education subjects, and Multimedia Etymology subjects.

Third, the syntax for making products in this study uses Macromedia Flash 8. Meanwhile, other relevant studies, although using Macromedia Flash, have not used the latest Macromedia Flash, namely number 8.

Fourth, the assessment aspects in relevant research are instructional requirements, cosmetic requirements, program requirements and curriculum requirements. Meanwhile, the assessment aspects in this assessment are material, media and language.

The recommendations of this research are first, this research is expected to be a bridge for other researchers to be able to conduct research using macromedia flash on Islamic Religious Education subjects. Second, teachers and schools are expected to use macromedia flash 8 as a technology in creating learning media products to be used in the relevant schools.

The limitations of this research are first, the product developed, namely Macromedia Flash 8, can only be used via a laptop/computer with a minimum specification

of Windows 7. Second, Input from the validator cannot be fully fixed due to limited ability to fix it. Third, the researcher's limitations in terms of beautifying the appearance of the product. Fourth, the limitations of time, energy, and costs that occur to the researcher, so that they can only make a makeshift product even though they have tried their best.

CONCLUSION

This research is motivated by the low learning outcomes of students. The cause of the low learning outcomes of students is because the learning multimedia used by teachers still uses power point media. The solution to this problem requires interesting media/multimedia. The interesting media is Macromedia Flash 8. The results of the study show that first, this product began to be made as interesting as possible by adjusting it to the school curriculum, CP and ATP, and learning modules. The stages of making this product start from needs analysis, data collection, study of the use of Macromedia Flash 8, planning, making multimedia with Macromedia Flash 8, implementing media in the field, and evaluating media.

Second, the results of product validity, the validation of material 1 reached 80% (very valid) and the validation of material 2 reached 80% (very valid). Validation of media 1 reached 94.3% (very valid) and validation of media 2 reached 61.43% (valid). Validation of Language 1 reached 94.5% (very valid). So it can be concluded that the product is suitable for use in schools.

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