

Innovation of Gerhana Application Development in Technology-Based Madrasah Learning

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ABSTRACT

HISTORY

Received

04 August 2023

Revised

25 November 2023

Accepted

08 December 2023

KEYWORDS

*Gerhana Application,
Interactive Multimedia,
Media Development,
Technology-Based
Madrasah Learning.*

The purpose of this research is to develop interactive learning media called "Gerhana" (Gerakan Pembaharuan Islam di Indonesia) as android applications. The media is used to determine the feasibility of the product and student responses to the application. This research employs the APPED Research and Development Model (analysis, planning, production, evaluation, and dissemination). The instrument used is a media and material expert validation questionnaire, as well as a student response questionnaire. The instrument was administered to 30 students at the Islamic History class subject (Grade 10), at the Islamic Senior High School (ISHS) 9, Jombang. The initial media validation test generated an average score of 86 percent, while the second one resulted in 84 percent with a very valid category. The results of the initial material validation test had an average score of 92 percent, while the second one was 87 percent with very valid criteria. Further, the results of the user test in the form of a student response questionnaire resulted in average score of 80 percent with decent criteria. Therefore, according to the results of the user test and students' response suggest that the "Gerhana" application is feasible.



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 : <https://doi.org/10.47766/idarah.v7i1.1788>

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ABSTRAK

Kata Kunci:

*Aplikasi Gerhana,
Gerakan Pembaruan
Islam di Indonesia,
Multimedia Interaktif,
Pembelajaran Madrasah
Berbasis Teknologi,
Pengembangan Media.*

Tujuan penelitian ini untuk mengembangkan media pembelajaran interaktif yang diberi nama Gerhana (Gerakan Pembaruan Islam di Indonesia) berupa aplikasi Android. Media digunakan untuk mengetahui kelayakan produk dan respon siswa terhadap aplikasi media Gerhana (Gerakan Pembaruan Islam di Indonesia) pada mata pelajaran Sejarah Islam XI di Madrasah Aliyah Negeri (MAN) 9 Jombang. Penelitian ini menggunakan metode kualitatif model penelitian dan pengembangan (*Research and Development*) meliputi analisis, perencanaan, produksi, evaluasi, diseminasi (APPED). Instrumen yang digunakan adalah angket validasi ahli media dan materi, serta angket respon siswa. Instrumen ini diberikan kepada siswa kelas XI MAN 9 Jombang sebanyak 30 siswa. Hasil dari Penelitian dilihat dari uji validasi ahli desain media, ahli materi, dan angket respon siswa. Hasil dari uji validasi ahli media yang pertama dengan skor rata-rata 86%, yang kedua sebesar 84% dengan kategori sangat valid. Sedangkan hasil uji validasi ahli materi yang pertama dengan skor rata-rata sebesar 92%, yang kedua sebesar 87% dengan kriteria sangat valid, dan hasil dari uji pengguna berupa angket respon siswa dengan skor rata-rata 80% dengan kriteria layak. Dengan demikian dilihat dari hasil uji pengguna respon siswa terhadap media aplikasi Gerhana layak digunakan.

INTRODUCTION

Education has a great influence on the quality of life of the nation, as stated in the preamble of the 1945 Constitution which states that one of the goals of the Indonesian state is to educate the nation's life ([Alhamuddin et al., 2020](#); [Feriandi, 2019](#); [Wahyudin & Suwirta, 2020](#)). Therefore, education is very important for humans ([Williamson, 2016](#)). So important is education that it is placed at the highest position in its teachings ([Rohman, 2013](#)). The quality of education with the aim of strengthening human resources in Indonesia can be achieved through the education process ([Mutiaraningrum, 2022](#)). With the importance of education, education has a goal to get the results of education.

The growth of knowledge is reflected in the rapid development of civilization and culture ([Aprilia & Sari, 2023](#); [Juniarni & Ali, 2022](#)). The development of civilization and culture is closely related to the mindset of society, and the progress of the mindset of society depends on education ([Redner, 2020](#)). Therefore, if one wants progress in knowledge, it is necessary to develop education as much as possible. Development is a process that determines everything that will be done in the process of learning activities by taking into account the interests and potential of students ([Suryadarma & Jones, 2013](#)).

The learning process is a component of a system in which there are relationships and interactions between one another to achieve a goal with the best results ([Bandyopadhyay et al., 2021](#)). Media in education are all kinds of graphic,

photographic, or electronic devices used to capture, enhance, and reorganize visual and verbal information ([Purwani et al., 2019](#); [Smirnova et al., 2020](#)).

The employment of media in education strongly correlates with the quality of educational processes ([Susetyaningsih, 2019](#)). Effective utilization of learning media can enhance students' learning experiences. In the past, communication was restricted to teachers only ([Mihailidis, 2015](#)). However, the use of learning media is hoped to increase the interaction between teachers and students. Learning media can be particularly useful for subjects with tangible concepts, such as Islamic history, aiding teachers in achieving educational goals and increasing efficiency ([Mutohar & Trisnantari, 2020](#)).

Educational innovation can make learning processes more engaging and varied. In addition to being appealing, such innovations can boost students' motivation to engage more actively in learning, and gradually improve the quality of teaching ([Garzón Artacho et al., 2020](#); [Siregar & Prasetyo, 2023](#)). The development of learning media represents one aspect of technological advancement. Previously, multimedia-based interactive learning media used combinations of text, images, and animations, requiring the engagement of multiple senses in the learning process ([Novitasari, 2016](#); [Vaganova et al., 2020](#)).

The role of media in learning is as crucial as teaching methods, with both having equally important roles ([Damayanti & Pratama, 2023](#)). The purpose of learning media is to make abstract concepts tangible. Islamic history, a subject that explores the evolution and incidents related to Islam, Islamic civilization, and Islam's role and contribution to world history, is one such subject with abstract concepts. As stated in an interview with an Islamic cultural history teacher at Islamic Senior High School (ISHS) 9 Jombang, students often encounter difficulties in Islamic Cultural History (ISH) lessons.

The complexity of the Islamic renewal movement in Indonesia, a topic in the Islamic Cultural History curriculum, often confounds students at ISHS 9 Jombang, Class XI. Traditional teaching aids, such as PowerPoint presentations, have proven insufficient to facilitate understanding due to inconsistencies with textbook content. Consequently, an alternative pedagogical tool is required to amalgamate didactic resources, thereby enhancing comprehension and practicality ([Abdulrahaman et al., 2020](#)).

This research intends to address this pedagogical gap by developing an interactive multimedia learning platform tailored specifically for the Islamic renewal movement subject matter ([Castro-Alonso et al., 2021](#); [Shchyrbul et al., 2022](#)). This user-operated platform aims to augment student engagement with the subject, given the demonstrated influence of learning media on student responses. The proposed solution, Gerhana Interactive Multimedia is designed to be accessible and operable at

any time, providing students with flexible learning opportunities. It is anticipated that this tool will foster enthusiasm, thereby improving learning outcomes in this complex subject area.

According to Wina Sanjaya, learning media serves as a learning resource for students to obtain information provided by the teacher, so that they can learn more effectively and broaden their horizons ([Nurrita, 2018](#); [Sanjaya, 2013](#)). The use of Gerhana media tools should also follow the standards to attract students' responses and make students actively involved during the learning process. It is very important to upgrade learning materials by incorporating game-based media and technology so that students can actively participate in class. Already in the era of the industrial revolution that is developing today, in terms of education, it has begun to be improved regarding the use of media to create effective, interactive learning, and can be used by all groups.

Nowadays, science and technology have developed very quickly, and this has an impact on everyday life. The use of technology in education has a very beneficial impact on learning ([Sunil Prasad Chauhan, 2021](#)). The development of science and technology (IPTEK) can be utilized in media development. The rapid progress of science and technology (IPTEK) today requires teachers to be creative and innovative. Teachers must know the latest technological developments so that when delivering material, it will be more interesting for students, especially when teachers utilize or use learning media. Because with innovation in education, the learning process will be more interesting and varied. In addition to being interesting, teacher innovation can increase student motivation to study harder and the quality of teaching can gradually improve ([Townsend & Bayetto, 2021](#)).

The difference between Eclipse media and other multimedia learning resources may lie in the focus of content that specifically targets aspects of Islamic renewal in Indonesia. In addition, aspects of interactive design and information presentation that consider the social and cultural context of Indonesia can be an important differentiator. The importance of understanding the specific needs and context of the Islamic Renewal Movement in Indonesia in the development of interactive learning media can ensure that the material presented is relevant, easy to understand, and effective in achieving the desired renewal goals.

METHODS

This research uses the type of development of Research and Development. The Research and Development model applied in this research is the APPED model. The APPED model stands for five methodical and logical ways, among others. The initial analysis determines media development goals through a needs assessment, identifying gaps between current and desired situations, and prioritizing solutions. Planning involves instructional design, producing documents with outlines,

flowcharts, and storyboards. Production generates prototypes of learning media components (images, animations, etc.) according to the design document. Evaluation includes ongoing assessment by the developer, alpha testing, and beta testing conducted by the target audience (students) to assess the feasibility of the developed multimedia. Dissemination involves distributing and testing the product among the target audience, both in small and large student groups.

The type of data used in this study is quantitative, quantitative data was collected through distributing questionnaires to 30 grade XI students from a population of 40 students, but due to the difficulty of getting a full sample (35 people), the researchers got a sample of 30 students only. Furthermore, quantitative data were obtained from questionnaires of media design experts, material experts, and student response data. Analyze student ratings using a Likert scale system. Determining the feasibility value of each aspect on the questionnaire. Formula

Table 1. Learning Media Feasibility Scale

Learning Media Feasibility Score	Criteria
0 - 20%	Very Inadequate
20,01% - 40%	Inadequate
40,01% - 60%	Decent Enough
60,01% - 80%	Eligible
80,01% - 100%	Very Eligible

Table 2. Expert Validation Criteria Scale

Intervals	Criteria
$76\% \leq X \leq 100\%$	Very Valid
$51\% \leq X \leq 75\%$	Valid enough
$26\% \leq X \leq 50\%$	Less valid
$X \leq 25\%$	Invalid

RESULT AND DISCUSSION

This development research has produced an interactive learning media product named Gerhana Application (Islamic Reform Movement in Indonesia). This research was conducted to develop learning media in the subject of Islamic Cultural history at Islamic Senior High School 9 Jombang. The purpose of this study was to determine student responses and the feasibility of media made based on data from material experts, media experts, and students. The research approach used to develop effective teaching strategies through technological interventions such as Gerhana Application can be based on various theories including Constructivism theory is a theory that

argues that learning is an active process in which learners build their understanding through reflection on experience and interaction with learning materials.

Constructivism is an active activity, where learners build their knowledge, seek meaning from what they learn, and is a process of completing new concepts and ideas with existing frameworks ([Al-Kubaisi et al., 2022](#); [Praheto et al., 2020](#)). In the development of teaching strategies through technology interventions, the constructivist approach considers how technology can be used to enable learners to construct their own knowledge through exploration, interaction, and problem-solving, and Social Constructivism theory is a theory that emphasizes the important role of social interaction in learning. In the context of technology, interventions such as Gerhana Application can be utilized to facilitate collaboration between learners, allowing them to share ideas, discussions, and build knowledge together.

After interviewing one of the Islamic history teachers at Islamic Senior High School 9 Jombang, it has been revealed that the teachers' use of media is limited to PowerPoint presentations containing learning videos on specific topics. The teachers primarily rely on the lecture method or direct explanations of the material. The reason for continuing to use the lecture method is that the subject of Islamic history is perceived as difficult and requires direct explanation from the teacher. However, for topics like the Islamic Reform Movement in Indonesia, the teacher considers the lecture method less effective. This is because students' comprehension is not fully achieved through the lecture method alone. In the case of learning about the Islamic Reform Movement in Indonesia, teachers typically use media in the form of PowerPoint presentations with videos specifically addressing this topic. However, there are several obstacles, including a limited number of projectors available at the school, which hampers the optimal use of media. Additionally, some of the media used are less practical and can confuse students during the learning process. The utilization of alternative media may be necessary to support learning so that each student can independently engage with the material.

The development of interactive learning media specific to the Islamic Reform Movement in Indonesia (Eclipse Interactive Multimedia) is important because it can facilitate the delivery of the concepts of Islamic renewal more effectively. Here are some reasons for the need for such media development:

- (a) The importance of technology-based education, With the advancement of technology, learning approaches through interactive media can be more engaging and easier to understand, especially for generations who have grown up in the digital age.
- (b) Personalization of Learning, Interactive media allows for personalization in learning, allowing learners to adjust their own learning pace and get materials that suit their needs.

- (c) *Ease of Accessibility*, Interactive media can be accessed offline, allowing more people to access Islamic renewal materials anywhere and anytime without being limited by geographical boundaries.
- (d) *Teaching Efficiency*, By using interactive media, the delivery of information can be done more efficiently and effectively, enhancing the overall understanding of Islamic reform concepts.
- (e) *Interactivity for Active Participation*, Interactive media can stimulate learners' active participation through quizzes, simulations, and direct interaction, which can deepen their understanding of the concepts of Islamic renewal.

Based on the APPED development model which consists of five stages, namely the analysis stage, planning stage, production stage, evaluation stage, and dissemination stage, the Eclipse Interactive Multimedia can have significant implications and practical applications in teaching Islamic history in various educational institutions or contexts. Here are some relevant aspects:

- (1) *Increased Student Engagement*. Interactive multimedia can increase student engagement by presenting Islamic history in an interesting format, engaging them through images, videos, and interactive elements.
- (2) *Contextual Understanding*. Multimedia content can be customized to reflect the context of Islamic history in Indonesia, providing a deeper understanding of the development of Islam within the framework of local history.
- (3) *Facilitation of Independent Learning*. Interactive multimedia can provide students with the ability to learn independently, allowing them to explore Islamic history content at their own pace and in an appropriate learning style.
- (4) *Introduction to Islamic Reform Concepts*. Interactive multimedia can specifically highlight the concepts of Islamic renewal, providing an in-depth understanding of these movements and how they influenced Islamic history in Indonesia.

The application of Gerhana Interactive Multimedia in teaching Islamic history in educational institutions can enrich students' learning experiences, promote a better understanding of Islamic history in Indonesia, and support renewal efforts in the context of Islamic education. Some of the steps that researchers took to complete this research can be seen in the explanation below.

At this stage, researchers conducted a needs and gap analysis stage. At the needs analysis stage, namely conducting interviews with Islamic history subject teachers at Islamic Senior High School 9 Jombang which was conducted on March 10, 2023. The needs analysis aims to find out what data is needed in the developed media. After the interview with the Islamic history teacher, it turned out that he had used power point in the teaching and learning process, but the students' response in receiving the learning was not fully accepted, because it did not attract their attention. So, the data

needed in this learning is an interactive learning media that is interesting and can make students more active and enthusiastic in learning. While gap analysis is the desired situation with the situation that occurs.

The desired situation, after students install the Gerhana application students will be more active in learning, can better understand the material in the application, and not feel bored in its operation, but in the situation that some students are still lazy to learn, and it is difficult to pay attention to the explanation of the material in the application. Therefore, the solution to overcome this, researchers must be able to provide comfort to students and control students so that their attention is focused on all applications, to produce good results.

The next stage is the preparation of outline, flowchart, and storyboard, this stage is used for guidelines in production. The design consists of curriculum design that designs the curriculum structure or learning content that will be delivered through the application, and platform and technology selection that determines the most suitable platform for the application, as well as the technology that will be used in the development based on the results of the needs data. This interactive learning media is named Gerhana Application which can be installed using internet data but can be used anytime and without using internet data. The following is a table of the results of the outline design of the Gerhana Learning Media.

Table 3. Results of Outline Media Gerhana

Subject matter	The Islamic Reform Movement in Indonesia
Curriculum	Curriculum 2013
Class	XI MA
Basic Competencies	Identify the influence of the Islamic renewal movement Identify Islamic organizations that emerged as a result of the renewal movement.
Destination	Contains learning objectives developed from indicators and basic competencies.
Sub material	Contains sub-materials including, 1. Islamic Renewal Movement in Indonesia 2. Revival of Muslims in Indonesia
Evaluation	Contains multiple choice questions to determine student responses
Learning Resources	<i>Nur Hadi I Noor Hidayah B.S.I Istirokhah</i>

Table 3 shows the results of the Gerhana (Islamic Renewal Movement in Indonesia) outline which is an improved design from the previous outline. The outline contains guidelines so that writers can be directed and more focused in their writing.

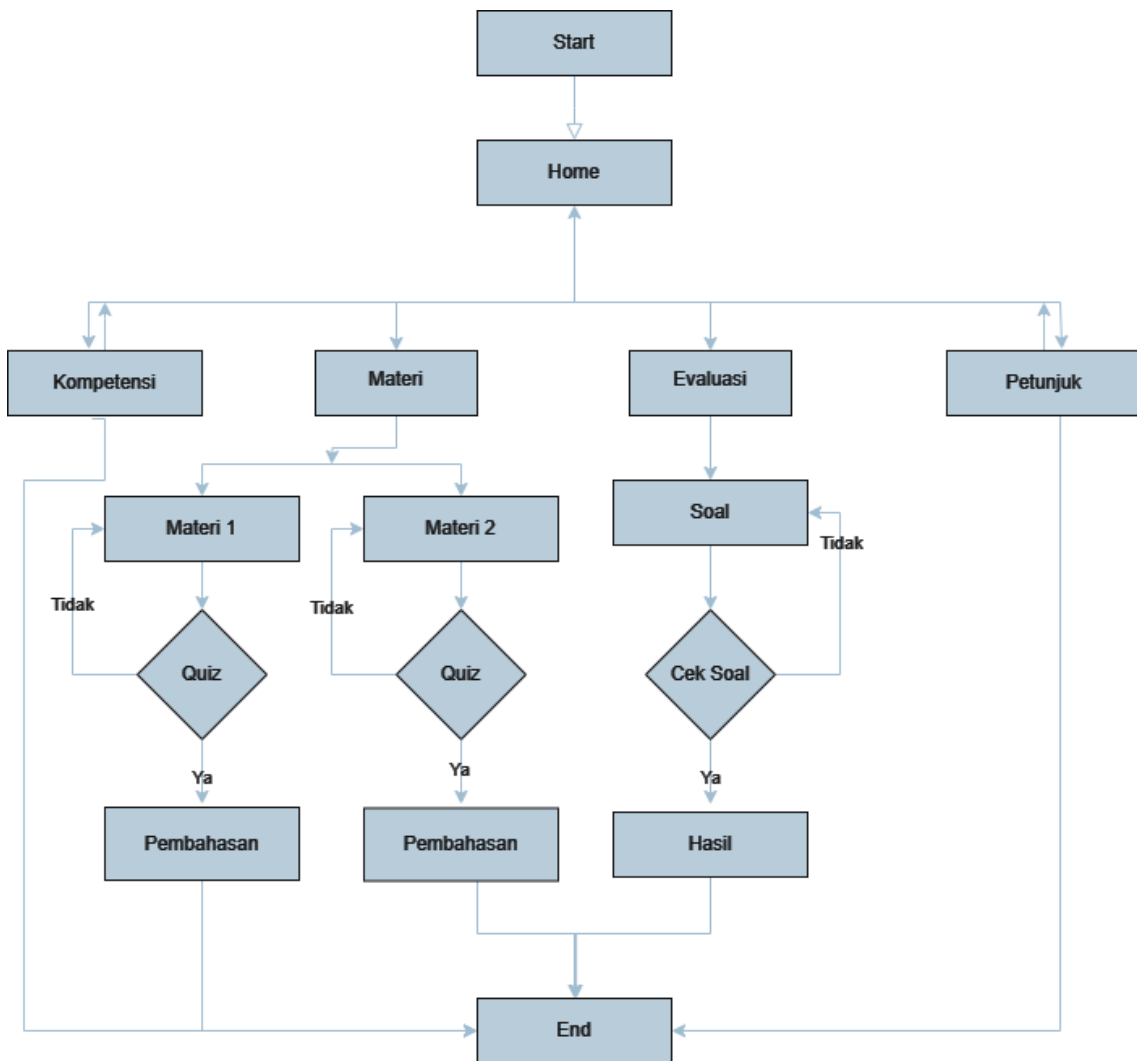


Figure 1: Media Flowchart Design Results Gerhana (Islamic Reform Movement in Indonesia)

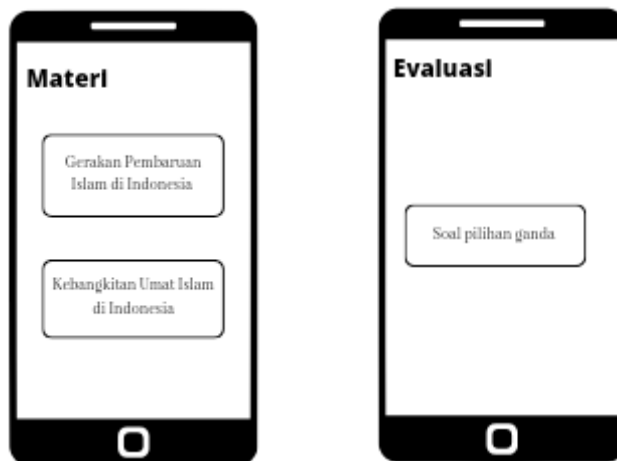
Figure 1 shows the results of the Gerhana Flowchart (Islamic Reform Movement in Indonesia) which is a refinement of the previous Flowchart design. This flowchart is a diagram that describes the process flow in making the Gerhana application.



Home view contains instructions, competencies, materials, and evaluation

Instructions for use contain procedures for using the media

Competencies contain learning objectives, core competencies, core competencies, and core competencies.



The material contains the main topics of discussion, namely
1. Islamic renewal movement in Indonesia
2. The rise of Muslims in Indonesia

Evaluation contains multiple choice questions totaling 10 questions

Figure 2: Gerhana Media Storyboard Design

Figure 2 the design of the Gerhana Media Storyboard (Islamic Renewal Movement in Indonesia) is made using the Canva application. Gerhana Media

Production (Islamic Renewal Movement in Indonesia) is made using the Framework 7 application as the main material, Visual Studio Code is used to edit and change the composition of photos, to graphic design, and assisted by Photoshop as another editing material. After that, it was collected in the form of files and made media. The following is the media design of Gerhana (Islamic Renewal Movement in Indonesia) after planning.



Figure 3: Results of Gerhana Media Storyboard Design

Figure 3 describes storyboard design that has been completed in the planning stage, then using the Framework 7 application to create Gerhana media. This media can be installed online but can be studied at any time without being connected to the internet.

Learning Islamic cultural history requires deep and diverse content covering various historical periods, events, figures, and Islamic culture. Specialized learning applications such as Gerhana media can enable the provision of more complete and in-depth content than traditional sources. The quality of the content should be improved to cover a variety of relevant viewpoints and approaches in Islamic history. Gerhana apps can provide a more interactive and immersive learning experience. Each learner has a different level of understanding, interest, response, and learning style. Learning apps can be customized to individual levels and needs, allowing learners to learn at their level and in the style that is most effective for students and can provide evaluation tools that allow learners and teachers to measure progress more efficiently. In addition, feedback can be provided instantly, helping learners understand their strengths and weaknesses in understanding the material. So there are aspects that include the advancement of interactive multimedia learning in the broader context of education, among others:

Table 4. Gerhana Contribution

Increased Student Engagement		Interactive multimedia, such as learning videos, simulations, and animations, can make learning more interesting and interactive. The ability to actively participate in the learning process can increase student engagement and motivate them to understand the subject matter.
Diverse Learning Styles		Students have different learning styles. Multimedia learning allows the use of different types of materials, such as text, audio, images, and video, so it can reach a variety of learning styles.
Accessibility and Flexibility		Multimedia technology allows access to learning from anywhere at any time. This is particularly important in situations where distance learning is increasingly necessary. This flexibility allows students to learn at their own pace, supporting differentiated learning
Technology Development	Skills	Integrating technology in learning helps students develop technology skills that are essential for the future. Understanding and mastering technology at a basic level can improve students' readiness for an increasingly digitized world of work

Teaching Efficiency and Effectiveness	Interactive multimedia allows teachers to present information in a more dynamic and engaging way. More engaging learning can improve information retention and concept understanding, making the teaching process more efficient and effective
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By considering the above aspects, interactive multimedia learning in education can provide a richer learning experience and support the achievement of educational goals more effectively.

Gerhana application is an Android-based learning application that has been developed for Islamic history education. In presenting Islamic history, Gerhana application may pay more attention to strong cultural and religious contexts, allowing learners to better understand Islamic history in their cultural context. Gerhana application contains a brief explanation of the content of the material Islamic renewal movement in Indonesia so that it can allow students to better understand the content of the material in the Gerhana application. This research can help develop effective learning models in the context of Islamic history education using technology and can be useful as a guide for educators in designing better learning experiences and can measure the impact of using Gerhana application in Islamic history learning.

During media production, the media is evaluated by validation experts according to their suggestions. This evaluation is called ongoing evaluation which aims to evaluate errors when the media is used. After production, the next stage is the alpha testing stage which is carried out by media experts and material experts.

The next stage is the alpha testing evaluation stage which consists of media expert and material expert validation tests. Data analysis of the results of the media expert validation test aims to determine the feasibility of Gerhana application (Gerakan Pembaharuan Islam di Indonesia) in terms of the media displayed, there are three aspects tested in media validation, namely display design, media feasibility, and ease of media use. This validation was carried out by S and NK who are media expert lecturers at KH. A. Wahab Hasbullah University.

While the data analysis of the material expert validation test results aims to determine the results of the feasibility of learning media Gerhana application in terms of the material presented. There are four aspects tested in the material expert validation, namely format, material content, language, and evaluation. This validation was carried out by Mrs. RS who is a teacher at Islamic Senior High School 9 Jombang, and Mrs. DAN who is a material expert lecturer at KH. A. Wahab Hasbullah University. The following are the results of media validation and material validation.

Table 5. Media validation test data Media validation test data

No	Name of Validator		Appearance	Media eligibility	Ease of Use of Media	Total score	Percentage	Criteria
1	S	V1	25	6	7	38	86 %	Very Valid
2	Nk	V2	24	7	6	37	84 %	Very Valid

- a. Likert Scale Formula (Mr. S) = $\frac{38}{44} \times 100\% = 86\%$
- b. Likert Scale Formula (Mrs. Nk) = $\frac{37}{44} \times 100\% = 84\%$

Table 5 obtained the average score of the first media expert validator test assessment by Mr. S which includes several aspects including the display design aspect of 25 scores, media feasibility of 6 scores, and ease of use of media of 7 scores. So it gets a score of 38 with a percentage of 86% with very valid criteria. The second media expert validator by Mrs. NK includes several aspects including aspects of display design of 24 scores, media feasibility of 7 scores, ease of use of media of 6 scores. So that it gets a score of 37 with a percentage of 84% with very valid criteria. It can be concluded that this media is very valid to be tested.

Table 6. Material Validation Test Data

No	Name of Validator		Format	Content Material	Language	Evaluation	Total score	Percentage	Criteria
1	RS	V1	12	11	10	4	37	92%	Excellent
2	DAN	V2	10	11	10	4	35	87%	Excellent

- a. Likert Scale Formula (Mrs. RS) = $\frac{37}{40} \times 100\% = 92\%$
- b. Likert Scale Formula (Mrs. DAN) = $\frac{35}{40} \times 100\% = 87\%$

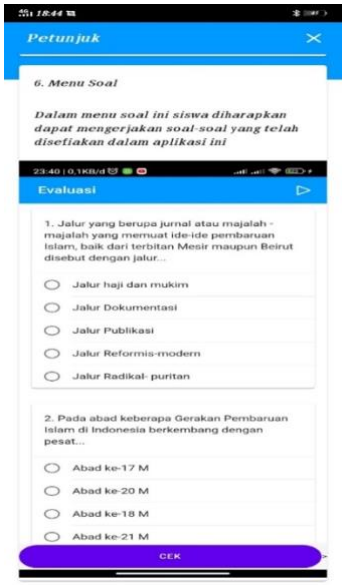
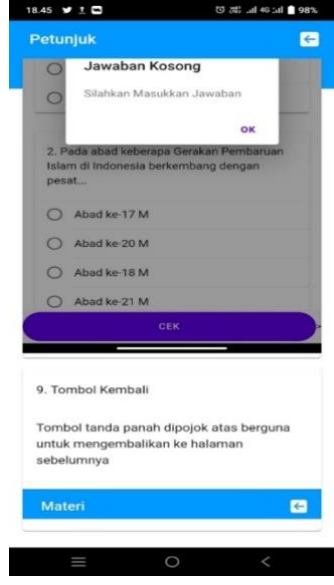
Table 6 describes the average score of the first material expert validator test assessment by Mrs. RS which includes several aspects including format by 12 scores, material content by 11 scores, language by 10 scores, and evaluation by 4 scores. So, it gets a score of 37 with a percentage of 92% with very valid criteria. The second material expert validator by Mrs. DAN includes several aspects including format with 10 scores, material content with 11 scores, language with 10 scores, and evaluation with 4 scores. The result gets a score of 35 with a percentage of 87% with very valid criteria. It can be concluded that the material in this media is very valid for testing.

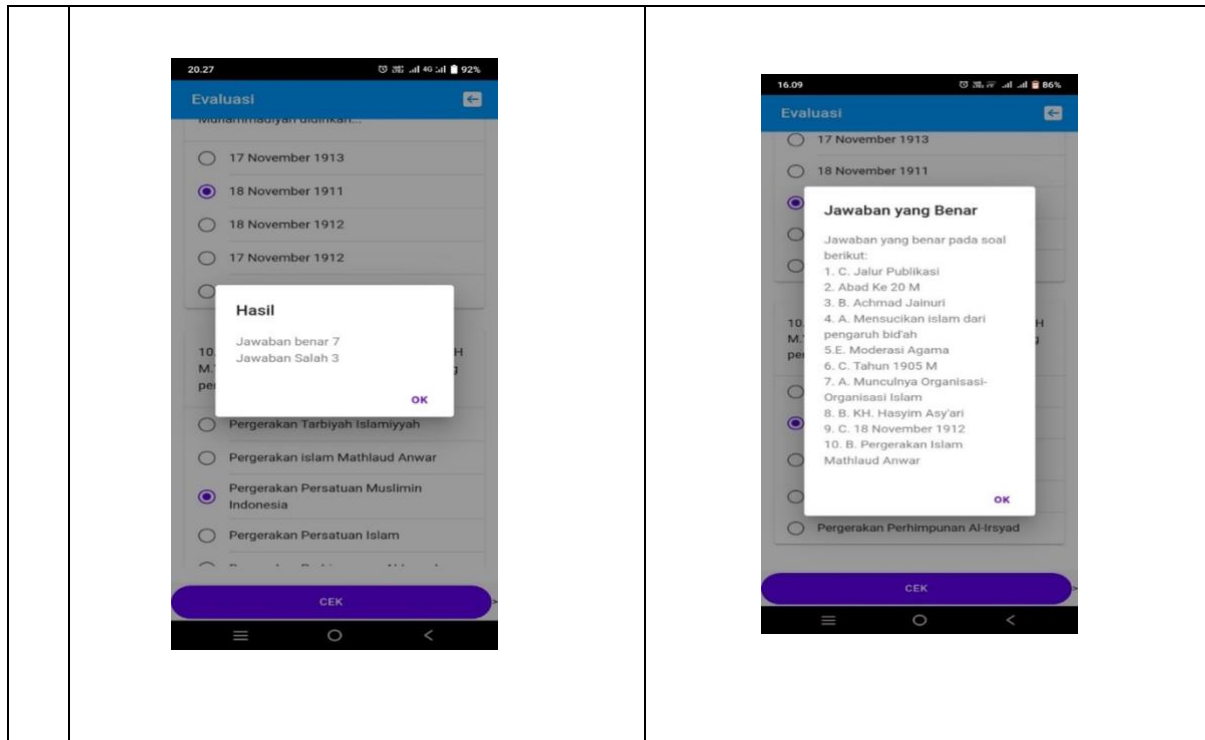
Based on the test results above, it can be obtained that the average score of the first media expert validator test assessment is 86% with very valid criteria, and the

second validator is 84% with very valid criteria. While the average score of the first material expert validator test assessment is 92% with very valid criteria, the second is 87% with very valid criteria. In general, the Gerhana application is feasible to be tested by the suggestions of media experts. The revisions from media experts include addition of a back button on the instruction page and the correct answer is given on the evaluation page

Product revisions were made by considering suggestions and comments from media design experts. The following is a table of media revisions by media design experts. Considering suggestions and comments from media design experts. The following is a table of media revisions by media design experts.

Table 7. Media Revision

Addition of a back button on the instructions page		
1	Before Revision	After Revision
		
The evaluation page is given the correct answer		
2	Before revision	After revision



Based on input from media expert validators. Researchers have made improvements to the validator's suggestions contained in the table above. The results of product revisions from media expert validators make Gerhana application suitable for testing after being revised. So it can be concluded that the Gerhana application is suitable for use. application offers very specialized and in-depth content regarding Islamic history. It addresses the challenges in Islamic history education, where quality resources and appropriate content are often limited. This app can be a rich and relevant resource for educators and learners.

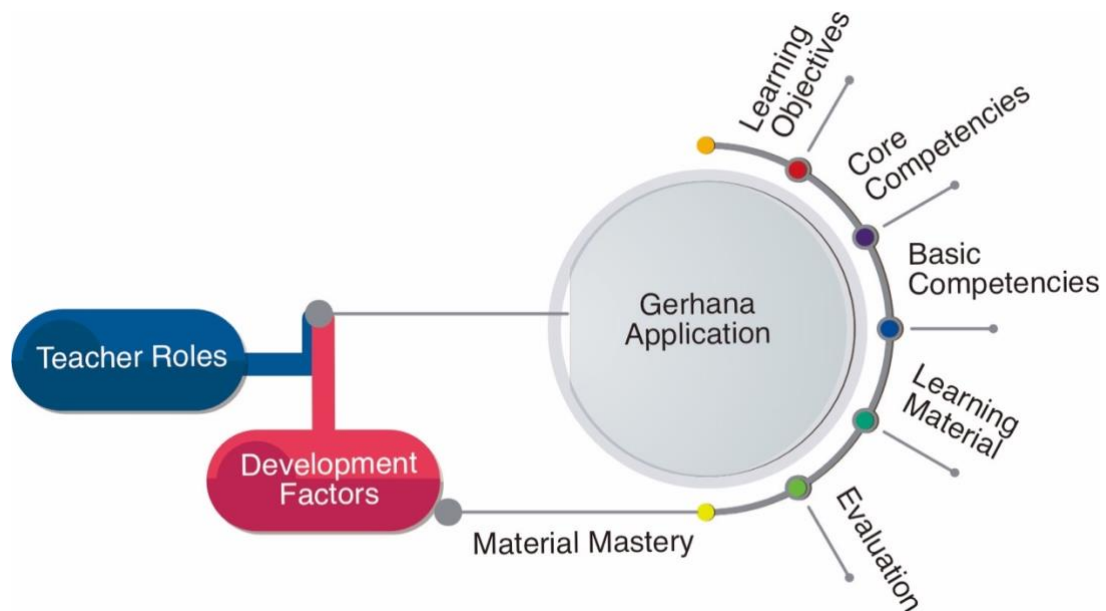


Figure 4: Novelty of Gerhana APP Learning Innovation

Figure 4 describes a new knowledge model that learning can be done by creating learning media called the Gerhana application virtually includes material, images, and animations. The application can reduce boredom with difficult material. technological development factors are also very rapid in the learning process, the role of the teacher is needed in the learning process, and the times. so that it can find solutions to the problems faced by its students. after finding a solution the teacher knows the understanding of the student's knowledge of the material that is considered difficult. This application provides benefits for development, increased creativity for teachers, and understanding of knowledge for students.

The advantages of Gerhana application can be accessed using an Android device. The advantage of Gerhana application is that it can facilitate students in learning the material of the Islamic Renewal Movement in Indonesia in full because the material subchapters are already in Gerhana application. Besides being able to be used in class, students can use this media to study independently because it is equipped with instructions for use so that it is easy to learn.

In addition, students can also use this learning media anywhere through their devices such as mobile phones, so this media can also be categorized as mobile learning. Students' learning response to this material is very high and has increased as evidenced by an increase of 80%. Thus, it can be concluded that the Gerhana application is suitable for student learning at school or anywhere independently without being limited by place and time, especially in this material and can improve the learning response of class XI students at Islamic Senior High School 9 Jombang.

CONCLUSION

The role of media in learning is equivalent to teaching methods because both have an equally important role. Learning media aims to make abstract concepts concrete. Islamic history is a subject that studies the development and events related to Islam, Islamic civilization, and the role and contribution of Islam in world history. This development research produces an application in the form of interactive learning multimedia called Gerhana application in Islamic Cultural History subjects. Gerhana Interactive Multimedia has gone through the validation stage and achieved valid criteria and is suitable for use in class XI learning activities at Islamic Senior High School 9 Jombang. The advantages of Gerhana application can be accessed using an Android device. The advantage of Gerhana application is that it can facilitate students in learning the material of the Islamic Renewal Movement in Indonesia in full because the material subchapters are already in Gerhana application. Besides being able to be used in class, students can use this media to study independently because it is equipped with instructions for use so that it is easy to learn. In addition, students can

also use this learning media anywhere through their devices such as mobile phones, so this media can also be categorized as mobile learning. Students' learning response to this material is very high and has increased as evidenced by an increase of 80%. Thus it can be concluded that the Gerhana application is suitable for student learning at school or anywhere independently without being limited by place and time, especially in this material and can improve the learning response of class XI students at Islamic Senior High School 9 Jombang.

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