

Innovation of E-Learning Based Google Site on Islamic Lesson For High School Students an Effort To Facilitate Self-Control

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ABSTRACT

The national education system needs to develop a more innovative learning system in order to improve the ability of graduates with 21st-century skills. Contrarily, the lack of educational media development in Islamic education lowers student interest in studying, which has an impact on academic performance and self-control. This study aims to develop an e-learning-based Google Sites media in Islamic Lesson for High School Students. This research was a type of Research and Development (R&D) using the Alessi and Trollip development model, which consists of 3 stages; planning, design, and development. The research subjects were 33 students and 2 teachers. Data were collected using questionnaires, tests, and interview guidelines. The data collection instrument uses a questionnaire sheet. Data analysis techniques using qualitative and quantitative descriptive analysis. The research results showed that two media experts gave an average score of 3.48, two material experts gave an average score of 3.63, and two instructional design experts gave a score of 3.74. It was concluded that e-learning-based Google Sites media were declared valid and feasible. E-learning-based Google Site media can be used in Islamic Lessons at once to facilitate self-control student of High School students.

Keywords: E-Learning, Google-Site, Islamic Lesson, Self-Control

ABSTRAK

Sistem pendidikan nasional perlu mengembangkan sistem pembelajaran yang lebih inovatif guna meningkatkan kemampuan lulusan yang memiliki keterampilan abad 21. Sebaliknya, kurangnya pengembangan media pembelajaran dalam pendidikan Islam menurunkan minat belajar siswa yang berdampak pada prestasi akademik dan pengendalian diri. Penelitian ini bertujuan untuk mengembangkan media e-learning berbasis Google Sites pada Pendidikan agama Islam bagi siswa SMA. Jenis penelitian ini yaitu R&D yang dibuat dengan menggunakan model pengembangan Alessi dan Trollip yang terdiri dari 3 tahap; perencanaan, desain, dan pengembangan. Subjek penelitian berjumlah 33 siswa dan 2 orang guru. Data dikumpulkan dengan menggunakan angket, tes, dan pedoman wawancara. Instrumen pengumpulan data menggunakan lembar angket. Teknik analisis data menggunakan analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian menunjukkan dua ahli media memberikan skor rata-rata 3,48, dua ahli materi memberikan skor rata-rata 3,63, dan dua ahli desain pembelajaran memberikan skor 3,74. Disimpulkan bahwa media e-learning berbasis Google Sites dinyatakan valid dan layak. Media e-learning berbasis Google Site dapat digunakan dalam Pembelajaran Agama Islam sekaligus untuk memfasilitasi pengendalian diri siswa SMA.

Kata Kunci: e-learning, Google-Site, PAI, Pengendalian Diri

A. INTRODUCTION

The digital era has presented teachers with a number of issues, including the need to become student facilitators (Roemintoyo et al. 2022). The teacher being a facilitator obviously requires support from the presence of suitable learning facilities and in accordance with the requirements of courses and students. So that students can understand the content of learning materials, teachers need learning media in both traditional and digital forms. In addition to helping students feel more supported during the learning process, the use of learning media also plays a significant role in efforts to create more meaningful and quality learning. Teachers will find it easier to facilitate learning when they use media that is tailored to the needs of their students (Malik and Agarwal 2012; Winarni, Akhyar, and Sudiyanto 2022). As opposed to the usage of worksheets and text-based media, learning media that is technologically integrated makes a significant contribution to achieving learning outcomes (Rahmawati and Ramadan 2021; Singh 2016).

Religion continues to have a crucial influence on one's general outlook on life, which includes economics, education, and civic behavior (Jogezai et al. 2021). However, Islamic education still employs the outdated (classical), rote-based system. The teaching and learning process becomes repetitive and dull when students are not actively involved (Ekasari et al. 2021). According to (Priyatna 2017), observes that teacher innovation and originality in the classroom are severely poor and virtually nonexistent. The existence of e-learning opens more doors to learners toward education such as improving interactions between students and teachers (Zoubi and Alzoubi 2019). That the students may access information without being constrained by time or place. E-learning is a cutting-edge educational approach that may be applied to improve student's learning practices and experiences while also supporting the development of new information skills. Many educational methods, including presentations, conversations, demonstrations, answer-question exercises, brainstorming, case studies, information hunts, cooperative learning, and problem-centered learning, can be used in an online learning environment (Kazu and Demirkol 2014). These various activities in the learning process can support students to attain the learning outcome.

The goal of 21st-century education is to help students acquire skills including critical thinking, communication, teamwork, creativity, innovation, and self-control (Sholihah, Wardani, and Prasetyo 2022). Self-control activities include thinking things out before making a decision. As for the necessity of self-control, it is a must for every person to develop a pattern of behavior based on moral principles, values, and cultural norms in order

to result in positive behavior. Student's moral development begins with the formation of self-control (Mukhopadhyay and Yeung 2010; Berkowitz and Grych 1998). Increasing self-control can be done with three activities that are interrelated and provide feedback, including; 1) Goal setting, 2) Monitoring system, and 3) Implementing system (Tangney, Boone, and Baumeister 2018). One of the potential ways to monitor students is by designing an e-learning-based Google Site.

Google application as an e-learning tool has a good impact on group work when it's used to manage documents, communication, and collaboration (Maqbool 2016). Anyone with a Google account has access to the Google Sites, and setting one up is very simple even for those without one. If the website developer marks the final curriculum as open access—requiring no special password to access—others can view it on the Google Sites service. Google Sites tool makes use of basic web design best practices (Twiggs 2019). According to (Arumingtyas 2021), the implementation of Google Sites learning media can improve students' learning discipline in online learning through a schedule of learning and study hours listed. Discipline students in attendance, listening to the material, and collecting assignments can be viewed and reviewed through various Google Sites features that teachers can provide and use in learning. In addition, (Thomas, Simpun, and Yulinda 2022) highlights that Google Site has a positive and significant influence as a learning resource on student learning outcomes.

Data observations at SMA Batik 2 Surakarta shows that the learning media used in Islamic Lessons are module books, PowerPoint, and projector which are less interactive. As a result, the learning environment in the classroom is less enjoyable and engaging for the student. Whereas, students' interactions with their surroundings can help them learn new things. Knowledge will develop as a result of active learners. Based on the result of observation, it was stated that Islamic learning at SMA Batik 2 Surakarta lacks in utilizing digital media that can facilitate students learning. In addition, the interview data for 33 students in class X shows that the students require engaging digital learning media such as e-learning that reflect the technological advancements of the 21st century.

Based on these problems, the solution that can be used is to develop learning media that can grab student's interest and facilitate their self-control. E-learning is one of the digital learning media that can engage students in thinking and learning more efficiently, quickly, and thoroughly than the conventional methods of reading a book or engaging in regular face-to-face instruction in the classroom (Kristanto 2021). This research aims to produce e-learning-based Google Site media that specifically contains learning content for *Al*

Kulliyatul Al Khamsah in Islamic Lesson for 10th-grade high school students. The Google site media is utilized in the development of instructional design that an effort to facilitate self-control. Furthermore, this research resolves issues raised by teachers regarding challenges in planning the learning process.

B. METHOD

This research is a type of development research (R&D) project that creates learning media and instructional design for Islamic Lesson in 10th High School. Research and Development Method (R&D) is a method used to produce certain products, and tests the effectiveness of the products developed (Gall, Gall, and Borg 2007; Sugiyono 2018). The development model used is the Alessi and Trollip Model, which consists of 3 stages, namely 1) the Planning Phase, (2) the Design Phase, and (3) the Development Phase (Alessi and Trollip 2000).

This development research used tests, questionnaires, and interview protocols to gather data. This study employed two different kinds of questionnaires, one for validators and one for students. Media expert lecturers and material/content experts both received validation questionnaires. The type of interview the researcher conducted was unstructured, meaning there were no set interviewing procedures that were fully planned out and methodically followed to obtain data (Mills and Gay 2019). The grid of questionnaires used in this research is shown in Table 1, Table 2, and Table 3.

Table 1. Validation Instrument Grid for Learning Media Expert

Aspect	Indicator	Question Number
Software engineering	a. Reliability of the program	2
	b. Maintainable	3
	c. Usability of the media	4
	d. Combability of the media	5
	e. Media program packaging and ease of execution	6
	f. Reusable media	7
	g. Effective and efficient in development and use	1
Visual Communication	a. Communicative	8
	b. Creative in expressing ideas	9
	c. Simple and charming	10
	d. Visual quality	11, 12, 13
	e. Use of mobile media	14
	f. Use of navigation	15, 16

(Wahono 2006)

Table 2. Validation Instrument Grid for Learning Content Expert

Aspect	Indicator	Question Number
	a. Suitability of the material to the Learning Outcomes (CP) and Learning Objectives (TP) in the curriculum	1

Guidance Material Design	b.	Contextuality and actualization	2
	c.	Completeness and quality of guidance materials	3
	d.	Depth of material	4
	e.	Ease of understanding the material	5
	f.	The material is systematic, coherent, and has a clear logical flow	6
	g.	Clarity of material descriptions, discussions, examples, simulations, and exercises	7
	h.	Suitability of images and videos	8
	i.	Accuracy and consistency of evaluation tools	9
	Language	a.	Writing material in accordance with EYD
b.		Correctness of the terms used in the material	11
c.		The language is straightforward	12

(Kustandi and Sutjipto 2019)

Table 3. Validation Instrument Grid for Instructional Design Experts

Aspect	Indicator	Question Number	
Learning design	a.	Suitability of media content with material	1
	b.	Conformity to Learning Outcomes (CP) and Learning Objectives (TP)	2
	c.	Practice questions in the media relevant to the material presented	3
	d.	The media's content follows a clear logical flow and includes methodical, cogent discourse.	4
	e.	The prepared media has the potential to improve student's motivation in learning.	5
	f.	Accuracy of media development with material	6
Operational	a.	The availability and clarity of media installation instructions	7
	b.	Ease of navigation in media operations	8
	c.	Accessibility and simplicity of media usage instructions	9
Visual communication	a.	Type of font in media	10
	b.	The language is straightforward	11
	c.	Images and animated media display	12

(Mishra and Reddi 2003)

The grid of the e-learning-based Google Site media validation instrument was consulted with the supervisor. Following the consultation, create the instruments, and then finish with professional evaluations. The data analyzed using the qualitative descriptive analysis method is based on comments, suggestions, and evaluations made by professionals with knowledge of the media under development. The expert assessment form was utilized to determine each expert's score using the quantitative descriptive analysis approach. The resultant score, measured as the average, is used to assess the reliability of any material created using the mean formula. The average score was achieved after applying four scale conversion criteria to assess the reliability of the media being created.

C. RESULT AND DISCUSSION

1. Result

According to the Alessi and Trollip model as the development model used, producing e-learning-based Google Site media necessary to go through 3 (three) phases/stages, there are planning phase, design phase, and development phase.

3.1.1 Planning Phase

To formalize a planning media project, have need to review the curriculum of the Islamic education subject group, syllabus, lesson plans, and student handbooks. The learning scope is determined in accordance with the Islamic Lesson at SMA Batik 2 Surakarta. The result of the learning's scope is shown in Table 4.

Table 4. Learnings' Scope

Category	Description
Development Goal	Learning media that can improve students' self-control
Level	Senior High School
Class	X (10 th grade)
Lesson	Islamic Lesson
Material Theme	<i>Al Kulliyatul Al Khamsah</i>
Learning Content	<ol style="list-style-type: none">1. Take care of religion (Hifdzu Din)2. Take care of the soul (Hifdzu Nafs)3. Take care of the mind (Hifdzu Aql)4. Take care of the offspring (Hifdzu Nasl)5. Take care of treasure (Hifdzu Mal)
Learning Outcomes (<i>Capaian Pembelajaran</i>)	In the aspect of <i>Fiqh</i> , students are able to analyze the implementation of <i>Al Kulliyatul Al Khamsah</i> (five basic principles of Islamic law and present an explanation of <i>Al Kulliyatul Al Khamsah</i> believing that these provisions are religious teachings.
Learning Objectives (<i>Tujuan Pembelajaran</i>)	<ol style="list-style-type: none">3. Analyzing the various types of <i>Al Kulliyatul Al Khamsah</i> as the objectives of Islamic law.4. Applying <i>Al Kulliyatul Al Khamsah</i> in everyday life.

The goals selection developed in the learning product is determined based on direct observations and interviews conducted with two Islamic lesson teachers and 33 students of class X at SMA Batik 2 Surakarta. The Islamic lesson teachers stated that the learning media currently used does not attract students' attention and cannot increase self-control. In addition, the students stated that the Islamic learning process is repetitive and dull and requires engaging digital learning media such as e-learning. The planning phase stage includes 1) Identifying learner characteristics, in order to ensure the results of developing e-learning-based Google Site media are accurate and in line with the requirements of the user. 2) Establishing the constraints, which creating a planning paper with a script and an evaluation, 3) Determining and collecting resources that will support and facilitate the developer during the development process, and 4) Conducting initial brainstorming, which

is the fusion of ideas in an endeavor to address issues by exchanging concepts with supervisors and Islamic teachers.

3.1.2 Design Phase

Several tasks are carried out at this stage, including idea development, concept and task analysis, first program descriptions, flowchart creation, and storyboarding. All concepts are developed during this phase of the process. This is the stage where the developer evaluates the *Al Kulliyatul Al Khamsah* content and explains how to apply it in order to improve self-control. The application content coverage should then be organized based on the findings of teacher interviews and the desired outcomes. Currently, a flowchart and storyboard are used to build a program planning design. After that, a storyboard is made using the information from this flowchart as a foundation. Figure 1. Shows the e-learning-based Google Site media's flowchart.

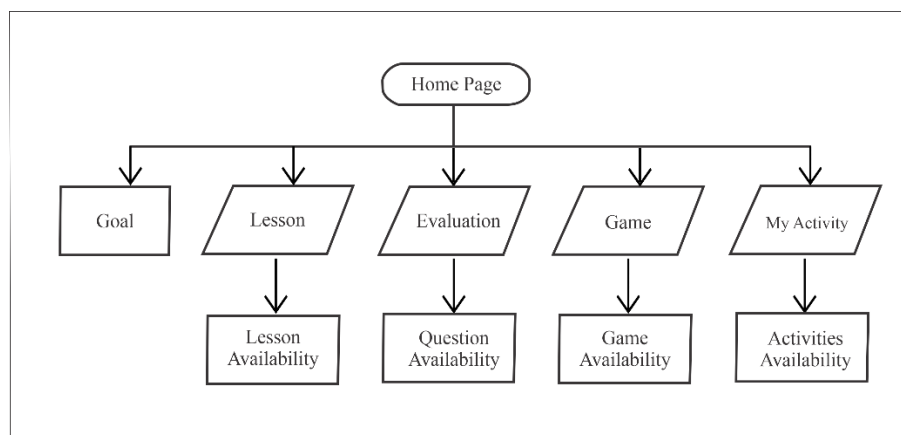


Figure 1. E-learning-based Google Site Media's Flowchart

3.1.3 Development Phase

The process in this stage includes the development of the content which consists of texts, images, videos, student data input items, and other content found in the e-learning-based Google Site. The main display on the e-learning media provides an overview of the advantages that student will experience in their study. And the next display provides an overview of *Al Kulliyatul Al Khamsah* and the student assignment for the lesson. Figure 2. shows the e-learning-based Google Site media's first-page display.



(Smartphone Version)



(Computer Version)

Figure 2. E-learning based Google Site Media's Start Page

The e-learning-based Google Site was tested in alpha test using an expert judgment approach. The experts are divided into three categories, namely learning media experts, learning content experts, and instructional design experts. Each expert consists of 2 experts, so that the total number of experts is 6. Each expert is given a closed measurement instrument with an optional number using a rating scale with a scale of 4. Tests related to the validity of the media aspect of learning media for learning media experts were given to 2 experts. Each expert is given the same instrument with the aim of obtaining comparative results. The results of testing by learning media experts using a descriptive quantitative percentage approach are shown in Table 5.

Table 5. Media Expert Validation Result

No.	Aspect	Score Expert 1	Score Expert 2
1	Software engineering	3,71	3,57
2	Visual communication	3,44	3,22
The average validity of each expert		3,57	3,39
Average total validation of media expert		3,48	

Based on Table 5, two learning media experts stated that e-learning-based Google Sites media were valid was an average total score of 3,48. It consists of a software engineering aspect and a visual communication aspect. The next test is the learning content expert. The result of the learning content experts test is shown in Table 6.

Table 6. Content Expert Validation Result

No.	Aspect	Score Expert 1	Score Expert 2
1	Guidance material design	3,22	3,66
2	Language	4	3,66
The average validity of each expert		3,61	3,66
Average total validation of content expert		3,63	

Based on Table 6, shows that two learning content experts strongly agree with the media content with an average total score of 3,63. It consists of the guidance material design aspect and the language aspect. After e-learning-based Google Site media is declared valid by the learning media experts and learning content experts, the next step is to produce an instructional design that uses the media. An expert judgment technique must be used to validate the instructional design. An instructional design specialist who also works as a teacher evaluates the instructional design. Two individuals who are experts in instructional design were given the identical instrument. Table 7 displays the findings of a descriptive quantitative analysis approach used to evaluate the learning design's level of validity.

Table 7. Instructional Design Expert Validation Result

No.	Aspect	Score Expert 1	Score Expert 2
1	Learning design	3,66	3,83
2	Operational	4	3,33
3	Visual communication	4	3,66
The average validity of each expert		3,88	3,60
Average total validation of media expert		3,74	

Based on table 7, shows that the instructional design expert validation result has an average total score of 3,74. It consists of a learning design aspect, an operational aspect, and a visual communication aspect. So it indicates that the media is a very valid category. Therefore, based on the tests carried out by six experts who were divided into three expert groups—learning media experts, learning content experts, and instructional design experts—it can be concluded that the Google Site employed for e-learning is genuine and appropriate for use in creating digital instructional designs for Islamic lessons for high school students in the 10th grade.

3.2 Discussion

Students can share their ideas and discuss solutions using collaborative tools like forums and wikis, which have the ability to facilitate participant interactions and group projects in web-based learning settings. Additionally, these tools typically give educators the means to keep an eye on student interactions and objectively evaluate their contributions (Orooji and Taghiyareh 2015). Collaborative learning tools such as e-learning have provided more opportunities to realize social constructive learning theories and they are recommended to be utilized in a suitable context, be configured appropriately, be managed along the time, and to replace the face-to-face interaction of the traditional classroom (Abel et al. 2010; Orooji and Taghiyareh 2015).

The resulting learning media must be tested for its validity level (Roemintoyo et al. 2022; Udayani, Wibawa, and Rati 2021). Evaluating the degree of validity of learning media in relation to media characteristics and content aspects that were evaluated by 2 learning media experts and 2 learning content experts. The validity of the media aspect test revealed true and appropriate predicates (Table 5). A comparative descriptive analysis approach is used to analyze the test findings, which demonstrates the validity and viability of e-learning based on Google Sites. A content aspect test that demonstrated the content's validity did so without diluting its core point (Table 6). When the validity test findings from the learning content specialists were evaluated using a comparative descriptive approach, it became clear that the Google Site for e-learning may contain *Al Kulliyatul Al Khamsah* content with valid and workable predicates. Experts in instructional design conducted testing on instructional designs, which resulted in valid and pertinent predicates (Table 7). A comparative descriptive technique was used to reexamine the instructional design test results, and it was discovered that the findings were highly valid and practicable. A media's validity demonstrates that it is appropriate for use in education (Fahmi, Yusuf, and Muchtarom 2021; Filivani and Agung 2021; Hariyani, Kusumawardani, and Sukardjo 2021).

An effective learning environment should be produced by the adoption of digitally based learning media innovation. Learning media benefits students by increasing and focusing their attention on the subject matter so that they are always engaged in learning activities, increasing direct interaction between students with the learning environment and teachers, and allowing students to learn independently in accordance with their learning preferences (Fahmi, Yusuf, and Muchtarom 2021; Andriyani and Suniasih 2021). Engaging in relevant and challenging online learning can stimulate students' interest (Abramovitz et

al. 2012; Kristanto 2021). Online education offers a secure, pleasant, and individualized learning environment (Jogezai et al. 2021).

E-learning-based Google Sites can be used in the Islamic learning process due to several factors, namely as follows. E-learning makes a bigger difference in students' learning outcomes than conventional teaching techniques. E-learning, in contrast to traditional learning, increased students' critical thinking and response rates, and there was a significant association between learning outcomes. When compared to traditional learning, e-learning makes a greater contribution to the learning outcomes in subjects (Kazu and Demirkol 2014; Korkmaz and Karakus 2009). In addition, e-learning has astronomical effects compared to conventional training. The tremendous benefit of e-learning is increased learner control (Piskurich 2003). The fact that the accessibility of information for students in the context of online learning regardless of location or physical restrictions. Thus, the product of this research in developing an e-learning-based Google Site can be an innovation in the application of digital learning media for learning tasks, particularly for Islamic education themes, which significantly aids in enticing students and promoting self-control.

D. CONCLUSION

Google Sites is one that allows for easy access, is very user-friendly, and best suits the needs of the 21st-century educator. The research results showed that two media experts gave an average score of 3.48, two material experts gave an average score of 3.63, and two instructional design experts gave a score of 3.74. It was concluded that e-learning-based Google Sites media were declared valid and feasible. E-learning-based Google Site media can be used in Islamic Lessons at once to facilitate self-control student of High School students.

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